

#### **TECHNICAL SPECIFICATIONS**

Technical Data:		All technical data relate to an ambient temperature of +25°C									
Capacitance Range:		4.7µF to 1500	ϽμF								
Capacitance Tolerance:		±20%									
Leakage Current DCL:		0.1CV									
Rated Voltage DC (VR)	≤ +85°C:	6.3	10	16	20	25	35	50			
Surge Voltage (VS)	≤ +85°C:	8	13	21	26	33	46	65			
Temperature Range:		-55°C up to +	-125°C	~							

NOTE: Conductive Polymer Capacitors are designed to operate within the limits of the environmental conditions specified for each series. If operated continuously at their maximum temperature and / or humidity limit, or beyond these limits, capacitors may exhibit a parametric shift in capacitance and increases in ESR. These changes may occur earlier if the specified environmental conditions are exceeded. Similarly, their normal operational time period will be significantly extended if their general duty cycle includes operation below maximum temperature within humidity controlled environments. Careful attention should be paid to maximum temperature within humidity environments as well as voltage derating, ripple current and current surges. Please reference the AVX Conductive Polymer Capacitor Guidelines for more information or contact factory for application assistance.

#### CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

Capac	itance						Rated V	oltage DC	(VR) to 85	°C, [mJ]							
μF	Code	6.3	/ (J)	10V	(A)	16V	(C)	20\	′(D)	25V (E)		25V (E) 35V (V)		35V (V)		50V (T)	
4.7	475											L(300)/ T(200)	[1.8]				
6.8	685													C(200)	[5.4]		
10	106											T( <mark>150</mark> , 200)	[3.9]	D(120)	[8.0]		
15	456											C(200)	[5.8]	E(70)	[11.9]		
22	226									T(200)	[4.3]	D(100)	[8.5]				
33	336					H(150)/ T(200)	[3.3]					D(70)	[12.8]				
47	476			C(100)/ H(100)	[1.7]	T(150)	[4.7]			X(100)	[9.2]	X(150)/ Z(150)	[18.2]				
68	686	H(100)	[0.8]	D(45)	[2.5]	D(50)	[6.7]	D(55)	[8.4]	D(70)	[13.3]						
100	107			D(45)	[3.6]	D(50)	[9.9]	D(55)	[12.4]	D(70) 4(100)	[19.6]	4(100)/ 8(100)	[38.8]				
150	157	T(200)	[1.7]	D(45)	[5.4]	X(100)	[14.9]			4(70)/ 8(70)	[29.3]						
220	227	H(170)	[2.6]	D(40)	[7.9]	D(50) 4(70)	[21.8]	4(100)	[27.2]	4(100)	[43.0]						
330	337	D(40)	[3.8]	5(100)	[11.9]	4(70) 5(100)	[32.7]										
470	477	X(50)	[5.4]			5(100)	[46.6]										
1000	108	4(55)	[11.6]														
1500	158	4(55)	[17.4]														

Released ratings (ESR ratings in mOhms in parentheses) [Energy in mJ]

Engineering samples - please contact AVX

Note: Voltage ratings are minimum values. AVX reserves the right to supply higher voltage ratings in the same case size, to the same reliability standards.





#### **RATINGS & PART NUMBER REFERENCE**

AVX Part No.         Size         Capacitance (space)         Voltage (space)         Mode (space)         PMS (space)         Currey (space)         Mode (space)         Mode				Rated	Maximum	DCL	DF	ESR	1000kHz				ENERGY							
Untriverse         Unit	AVX Part No.	Case Size	Capacitance (µF)	Voltage (V)	Operating Temperature (°C)	Мах. (µА)	Max. (%)	Max. @ 100kHz (mΩ)	RMS Current (mA) 45°C	Product Category	MSL	Energy (mJ)	Energy/volume (mJ/cm <sup>3</sup> )	Energy/area (mJ/cm²)						
TCL:HSM0064000F         T         4         6         100         100         3         0         0.5         5.4         0.0           TCL:HSTM0064070F         H         200         700         3         4.0         17         17.7           TCL:HSTM064070F         H         200         6.3         105         132         10         17.0         200         20         3         2.6         17.3         20.0           TCL:HSM00640705         X         400         6.3         85         600         20         25         18.80         5         4         11.6         11.3         22.6           TCL:HSM006405055         4         1000         100         300         3         1         7         1         1         1         1         2         3         3         1         7         1         <					6.3 Volt @ 85	°C							6.3 Volt @ 85°C	;						
TANTERVARD6462001         T         190         6.3         105         40         107         200         3         3         3         2         6         17.3         64.0           TCLIDE27M06401047         D         30.0         6.3         115         168         6         40         2400         2         3         8.8         4.2         17.3         64.0           TCLIDE27M06401060107         H         30.0         6.3         165         900         20         55         18.0         4         1.4         7.3         7.8           TCM147M016401005         H         47         6.0         100         100         1.5         7.8         1.7 <td< td=""><td>TCJH686M006#0100E</td><td>Н</td><td>68</td><td>6.3</td><td>105</td><td>40.8</td><td>6</td><td>100</td><td>1000</td><td>3</td><td>3</td><td>0.8</td><td>54</td><td>8.0</td></td<>	TCJH686M006#0100E	Н	68	6.3	105	40.8	6	100	1000	3	3	0.8	54	8.0						
TC.H227XM0640170E         H         220         6.3         105         132         10         170         800         3         3         2         2.6         173         26.0           TC.M37XM0640008E         V         4.30         6.3         185         280         10         50         1500         6.3         122         122           TC.M37XM0640008E         4         4.00         6.3         85         280         100         55         1540         5         4.4         1135         172           TC.M37XM054001950E         4         17         6         100         1000         3         3         1.7         344         8.3           TC.M37XM05400196100E         6         47         10         105         47         6         100         100         3         3         2.5         7         7.8           TC.M37XM01491000E         5         330         10         105         320         0         3         3         3.5         2.5         7         7.8           TC.M37XM014910002         T         33         16         105         52.8         6         100         3         3         3	TCNT157M006#0200E	Т	150	6.3	105	90	10	200	700	3	4	1.7	147	17.7						
TL.0327/M0690040E       D       330       6.3       105       198       6       400       2.0       3       3.9       4.2       12.2         TCNAT7M0690058       4       1000       6.3       85       660       20       55       1860       5       4       11.6       139       26.0         TCNATSM06900058       4       1000       6.3       85       660       20       55       1860       5       4       11.6       139       26.0         TCAHSM06900058       4       100       105       47       6       1000       1000       1       3       3       1.7       115       17.3         TCL0257M0100005       C       47       100       105       47       6       1000       1000       1       3       3       1.7       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3       115       17.3	TCJH227M006#0170E	Н	220	6.3	105	132	10	170	800	3	3	2.6	173	26.0						
TCNAT/M00400058         X         470         6.3         85         282         10         50         1900         5         5         5.4         115         17.3           TCNATBM00490058         4         1500         6.3         85         600         20         55         1860         5         4         114         135         26.0           TCNATBM01901058         C         47         10         10         85         160         150         19         3         2         2         77         14         185         77         17	TCJD337M006#0040E	D	330	6.3	105	198	6	40	2400	2	3	3.8	42	12.2						
TCN1980M0690055         4         11.6         130         26.0           TCN1980M0690055         4         1760         6.3         85         600         20         55         1860         5         4         17.0         193         39.0           TCN1980M0690055         4         7.7         195         7.7         195         7.7         195         7.7         195         7.7         195         7.7         195         7.7         195         7.7         195         7.7         195         7.7         195         7.7         7.	TCNX477M006#0050E	Х	470	6.3	85	282	10	50	1900	5	5	5.4	115	17.3						
TCM158M00e40055         4         1150         6.5         6         71.4         1195         39.0           TCLAH35M01401001         H         4         7         110         1105         47.4         1105         17.4         1105         73.0           TCLAH35M01401001         4         47         10         1105         47.3         115         17.3           TCL0107M0140045E         D         100         100         6         45         2200         3         3         5.4         40         11.5           TCL0107M0140045E         D         100         100         100         6         45         2200         3         3         5.4         40         11.5           TCL0107M01400405E         D         100         100         100         6         45         2200         3         3.5         5.4         40         11.5           TCL3027M014004070E         H         3.3         10         100         100         2.2         11.9         100         33.3         2.23         3.4         13.3         2.23         3.4         13.3         2.23         3.4         13.3         2.23         3.4         2.33         2.23	TCN4108M006#0055E	4	1000	6.3	85	600	20	55	1860	5	4	11.6	130	26.0						
U volte # sr0         U volte # sr0         U volte # sr0           CLAH7/MAN10910000         I         IV volte # sr0           CLAH7/MAN10910000         C         IV volte # sr0           CLAH7/MAN10910000         C         IV volte # sr0           CLAH7/MAN10910000         I         IV volte # sr0           CLAH7/MAN10910000         S         IV volte # sr0           IV volte # sr0         IV volte # sr0 <th <="" colspan="2" td=""><td>TCN4158M006#0055E</td><td>4</td><td>1500</td><td>6.3</td><td>85</td><td>900</td><td>20</td><td>55</td><td>1860</td><td>5</td><td>4</td><td>17.4</td><td>195</td><td>39.0</td></th>	<td>TCN4158M006#0055E</td> <td>4</td> <td>1500</td> <td>6.3</td> <td>85</td> <td>900</td> <td>20</td> <td>55</td> <td>1860</td> <td>5</td> <td>4</td> <td>17.4</td> <td>195</td> <td>39.0</td>		TCN4158M006#0055E	4	1500	6.3	85	900	20	55	1860	5	4	17.4	195	39.0				
TCJ-HZ/MAD1060100E         C         H         47         16         100         100         3         1.7         115         17.3           TCLD66M0100704E         D         6.4         10         125         47         6         100         13         3         1.7         115         11.5           TCLD66M0104704E         D         100         101         115         100         6         45         2200         3         3         2.5         2.7         7.8           TCLD627200104004E         D         100         105         220         6         4.0         2200         3         3         5.5         4.9         11.5           TCL3227X01049046E         D         2.20         10         105         120         3         1.9         1100         37.3           TCL3237X01049040E         T         33         16         105         52.8         6         150         800         3         3         2.23         33.4           TCL3337M01497005E         T         47         105         106         105         800         3         4         3.7         7.4         2.15         10.0         10.0         10.0 <td></td> <td>r</td> <td></td> <td>r</td> <td>10 Volt @ 85</td> <td>°C</td> <td>r</td> <td></td> <td>1</td> <td>1</td> <td></td> <td></td> <td>10 Volt @ 85°C</td> <td>1</td>		r		r	10 Volt @ 85	°C	r		1	1			10 Volt @ 85°C	1						
TC-LORFMONTGENDOSE       C       A7       10       125       A7       6       100       150       101       153       1.7       34       8.8         TC-L0107M0100045E       D       100       10       105       100       6       45       2200       3       3       1.6       40       11.5         TC-L0107M0100045E       D       100       10       105       100       6       445       2200       3       3       6.4       499       17.2         TC-L03SM0100004E       D       153       10       105       220       6       40       200       3       3       7.9       97       23.2       12.2         TC-L03SM01000040E       D       230       11       16 We 82C       0       100       13.0       2       3       3       3.7       3.3       22.3       3.4       13.2       13.4	TCJH476M010#0100E	Н	47	10	105	47	6	100	1000	3	3	1.7	115	17.3						
LCL0BERMOLIBIANSE         D         0         0         100 <t< td=""><td>TCJC476M010#0100E</td><td>C</td><td>47</td><td>10</td><td>125</td><td>47</td><td>6</td><td>100</td><td>1300</td><td>1</td><td>3</td><td>1.7</td><td>34</td><td>8.8</td></t<>	TCJC476M010#0100E	C	47	10	125	47	6	100	1300	1	3	1.7	34	8.8						
ICD/01/04/0149045E       D       100       105       100       105       100       105       100       105       100       105       100       105       100       105       100       105       100       105       100       105       100       105       100       105       100       105       100       105       100 <td>TCJD686M010#0045E</td> <td>D</td> <td>68</td> <td>10</td> <td>105</td> <td>68</td> <td>6</td> <td>45</td> <td>2200</td> <td>3</td> <td>3</td> <td>2.5</td> <td>27</td> <td>7.8</td>	TCJD686M010#0045E	D	68	10	105	68	6	45	2200	3	3	2.5	27	7.8						
ILCU101M010H048E       D       190       190       190       190       45       2400       3       3       54       99       1/2         ICU3227M0104040E       D       220       10       105       220       6       40       2400       3       3       7.9       8.0       7.0       8.0       7.0       8.0       7.0       8.0       7.0       8.0       7.0       8.0       7.0       1.0       1.0       1.0       7.0       1.0       7.0       1.0       7.0       1.0       7.0       7.0       1.0       1.0       1.0       7.0       7.0	TCJD10/M010#0045E	D	100	10	105	100	6	45	2200	3	3	3.6	40	11.5						
1	TCJD15/M010#0045E	D	150	10	105	150	6	45	2200	3	3	5.4	59	17.2						
IC3337/M0104100E       3       3.30       10       100       100       100       100       100       2.00       100       100       2.00       100       100       2.00       100       100       2.00       100       100       2.00       100       100       2.00       3.3       2       3.3       2.23       3.3.4         IC1338M01640150E       I       4.7       13       16       105       5.2.8       6       150       900       3       4       3.3       2.23       3.3.4         IC1358M01640150E       I       4.7       16       105       12.0       16       105       100       100       2.0       3       4       3.1       4.7       954       4.7.5         IC10270M01640050E       D       100       16       105       32.1       10       50       2.00       2       3       2.1       14.9       316       4.7.4       4.7       4.4       4.4       4.4       4.7       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4       4.4	TCJD22/W010#0040E	5	220	10	105	220	10	40	2400	3	3	7.9	8/	23.2						
LCJH338M016901805         H         33         16         105         52.6         6         150         800         3         43         223         33.4           TCH138M01642006         T         33         16         105         52.6         6         200         700         3         4         33.2         233         44           TCH168001640005         D         66         16         105         166         50         2100         2         3         6.7         74         21.5           TCM16900505         D         106         16         105         166         6         50         2100         2         3         6.7         74         21.5           TCM1690050         L         100         105         152         10         100         1300         3         4         14.9         34.0         45           TCM1270M1640705         4         200         16         105         522         10         100         1300         3         4         24.9         24.7         26.7         73.5           TCM1270M1640705         4         200         16         105         52.8         20         70 <td>10J5337W010#0100E</td> <td>5</td> <td>330</td> <td>10</td> <td>100 16 Volt @ 95</td> <td>330</td> <td>10</td> <td>100</td> <td>1300</td> <td>2</td> <td>3</td> <td>11.9</td> <td>16 Volt @ 95°C</td> <td>37.8</td>	10J5337W010#0100E	5	330	10	100 16 Volt @ 95	330	10	100	1300	2	3	11.9	16 Volt @ 95°C	37.8						
LCM3380M1640206       n       33       16       105       52.8       6       130       600       3       3.3       223       33.4         LCM1380M1640206       T       47       16       105       52.8       6       1200       700       3       4       4.3.3       277       33.4         LCM1380M16401566       T       47       16       105       72.8       6       180       000       3       4       4.7.7       395       47.6         LCM157M016400566       D       100       16       105       160       6       50       2100       2       3       6.7       7.4       21.5         LCM157M016400056       D       100       16       105       32.2       0       100       1300       3       4       14.9       316       4/4.4         LCM157M016400706       4       22.0       16       105       52.8       10       100       1300       2       32.7       27.4       104.2         LCM22M016400706       S       330       16       105       52.8       10       100       1300       2       32.7       27.4       104.2       12.5       12.5	TO 11/226 M016 #01 FOF		22	16	10 VOIL @ 85	<b>U</b>	6	150	000	2		2.2		22.4						
TCH 35300 0602000         T         33         T0         T00         <	TCJH336M016#0150E	H T	33	16	105	52.8	6	150	800	3	3	3.3	223	33.4						
Inclusion         Inclusion <thinclusion< th=""> <thinclusion< th=""> <thi< td=""><td>TCNT330W016#0200E</td><td>T</td><td>33</td><td>16</td><td>105</td><td>JZ.8</td><td>0</td><td>200</td><td>700</td><td>3</td><td>4</td><td>3.3</td><td>2//</td><td>33.4</td></thi<></thinclusion<></thinclusion<>	TCNT330W016#0200E	T	33	16	105	JZ.8	0	200	700	3	4	3.3	2//	33.4						
TCLDD07M05000000000000000000000000000000000	TC ID686M016#0150E		47	16	105	109.9	6	150	2100	3	4	4.7	395	47.0						
CONSTRUCT         Construct <thconstruct< th=""> <thconstruct< th=""> <thc< td=""><td>TC ID107M016#0050E</td><td>D</td><td>100</td><td>16</td><td>105</td><td>160</td><td>6</td><td>50</td><td>2100</td><td>2</td><td>3</td><td>0.7</td><td>100</td><td>21.5</td></thc<></thconstruct<></thconstruct<>	TC ID107M016#0050E	D	100	16	105	160	6	50	2100	2	3	0.7	100	21.5						
TCLD222M016#0050E         1         220         16         105         352         10         50         2100         2         3         218         240         295           TCM222M016#0070E         4         220         16         105         352         20         70         1650         2         3         218         246         49.0           TCM322M016#0070E         4         230         16         105         528         20         70         1650         3         4         2.1         24.5         44.0           TCM3237M016#0700E         5         330         16         105         528         10         100         1300         3         3         4.6.6         391         148.5           TCM256M026#0055E         D         6         820         105         136         6         55         2000         3         3         12.4         136         39.3           TCM2256M026#005E         T         2.2         2.5         105         55         6         200         3         4         4.3         364         43.9         105         105         105         105         105         105         105 <t< td=""><td>TCNX157M016#0100E</td><td>X</td><td>150</td><td>16</td><td>105</td><td>240</td><td>6</td><td>100</td><td>1300</td><td>2</td><td>4</td><td>14.9</td><td>316</td><td>47.4</td></t<>	TCNX157M016#0100E	X	150	16	105	240	6	100	1300	2	4	14.9	316	47.4						
TCM4227M016#0070E         4         220         16         105         352         20         70         1650         2         4         218         245         400           TCM4327M016#0100E         5         330         16         105         528         20         70         1650         3         4         32.7         244         104.2           TCJ537M016#0100E         5         330         16         105         528         10         100         1300         3         46.6         331         148.5           TCJ0566M0209055E         D         66         20         105         136         6         55         2000         3         3         8.4         92         26.7           TCM107M0209055E         D         100         200         6         55         2000         3         3         12.4         136         39.3           TCM222M0290100E         4         2.20         20         85         440         10         100         1380         5         4         2.7.2         305         61.1           TCM122M02580000E         T         2.2         25         105         17.6         6         100	TC.ID227M016#0050E	D	220	16	105	352	10	50	2100	2	3	21.8	240	69.5						
TCH4337M016#0100E         4         330         16         105         528         20         70         1650         3         4         32.7         367         72.5           TCJ3337M016#0100E         5         330         16         105         528         10         100         1300         2         3         32.7         27.4         104.2           TCJ3477M016#0100E         5         470         16         105         752         10         100         1300         2         3         32.7         27.4         104.2           TCJD666M020#0055E         D         68         20         105         200         6         55         2000         3         3         12.4         136         39.3           TCM222M025807010E         4         220         20         85         440         10         100         1380         5         4         27.2         305         61.1           TCM222M02580700E         T         2.2         2.5         105         17.6         100         1300         2         3         13.6         4         43.9           TCM22M02580700E         D         68         2.5         105 <td< td=""><td>TCN4227M016#0070E</td><td>4</td><td>220</td><td>16</td><td>105</td><td>352</td><td>20</td><td>70</td><td>1650</td><td>2</td><td>4</td><td>21.8</td><td>245</td><td>49.0</td></td<>	TCN4227M016#0070E	4	220	16	105	352	20	70	1650	2	4	21.8	245	49.0						
TC.S337M016#0100E       5       330       16       105       528       10       100       1300       2       3       22.7       27.4       104.2         TC.JS477M016#0100E       5       470       16       105       752       10       100       1300       3       3       46.6       391       148.5         Z0 Voit @ 85°C       Z0 Voit @ 85°C       Z0 Voit @ 85°C         COLDSEMO20#0055E       D       68       20 Voit @ 85°C         C       ZV Voit @ 85°C       Z0 Voit @ 85°C         C       ZV Voit @ 85°C       Z0 Voit @ 85°C         C       ZV Voit @ 85°C       ZV Voit @ 85°C         CN4227M020#0100E       T       22       Z5       ZV Voit @ 85°C         CN1226M025#0100E       T       22       Z5       Not	TCN4337M016#0070E	4	330	16	105	528	20	70	1650	3	4	32.7	367	73.5						
TCJ6477M016#0100E         5         470         16         105         752         10         100         1300         3         3         46.6         391         148.5           CUVIC® 85°C         20 Volt@ 85°C           TCJD107M020#0055E         D         100         20         105         200         6         55         2000         3         3         12.4         136         39.3           TCM227M020#0055E         D         100         20         85         440         100         1380         5         4         22.2         2305         61.1           TCM225#0200E         T         22         25         105         17.5         6         100         1300         2         5         9.2         195         29.3           TCMX25#0200E         T         22         25         105         17.5         6         100         1300         2         3         13.3         146         42.3           TCMX25#0200E         T         22         105         250         6         70         1800         2         3         13.3         146         43.9 <th colspan="6" tch<="" td=""><td>TCJ5337M016#0100E</td><td>5</td><td>330</td><td>16</td><td>105</td><td>528</td><td>10</td><td>100</td><td>1300</td><td>2</td><td>3</td><td>32.7</td><td>274</td><td>104.2</td></th>	<td>TCJ5337M016#0100E</td> <td>5</td> <td>330</td> <td>16</td> <td>105</td> <td>528</td> <td>10</td> <td>100</td> <td>1300</td> <td>2</td> <td>3</td> <td>32.7</td> <td>274</td> <td>104.2</td>						TCJ5337M016#0100E	5	330	16	105	528	10	100	1300	2	3	32.7	274	104.2
Image: constraint of the sector of	TCJ5477M016#0100E	5	470	16	105	752	10	100	1300	3	3	46.6	391	148.5						
TC_UB68M02040055E         D         68         20         105         136         6         55         2000         3         3         8.4         92         26.7           TCUD107M02040005E         D         100         20         85         440         10         100         1380         5         4         27.2         305         61.1           CSVMR@85'C         ZSVMR@85'C         ZSVMR@85'C           TCNT226.002540026         Z 22         Z 105         TCN         ZSVMR@85'C           CSVMR@85'C         ZSVMR@85'C           TCNT226.002540070E         Z 22         Z 105         TCN         Z 20         Z 105         TCN           CNX476M02540070E         X 47         ZS 105         TCN         Z 23         TCNX476M0254070E         Z 105         TCN         Z 24         TS 44.3         3464         43.9           TCNLT25M0254070E         D         100         25         105         275         6         70         1800         2         <					20 Volt @ 85	°C		,		•			20 Volt @ 85°C							
TC.D107M020#0055E         D         100         20         105         200         6         55         2000         3         3         12.4         136         39.3           TCN4227M020#0100E         4         220         20         85         440         100         100         1380         5         4         27.2         305         61.1           TCN1226M025#0200E         T         22         25         105         55         6         200         700         3         4         4.3         384         43.9           TCNX476M025#0200E         T         22         25         105         17.5         6         100         1300         2         5         9.2         195         29.3           TCDM66M025#0070E         D         100         25         105         250         6         70         1800         2         3         13.3         146         42.3           TCN366M025#0070E         4         150         25         105         375         6         70         1650         2         4         19.6         215         65.9            4         <	TCJD686M020#0055E	D	68	20	105	136	6	55	2000	3	3	8.4	92	26.7						
TCN4227M020#0100E         4         220         20         85         440         10         100         1380         5         4         27.2         305         61.1           CS Volt @ 85°C           CS Volt @ 85°C <th co<="" td=""><td>TCJD107M020#0055E</td><td>D</td><td>100</td><td>20</td><td>105</td><td>200</td><td>6</td><td>55</td><td>2000</td><td>3</td><td>3</td><td>12.4</td><td>136</td><td>39.3</td></th>	<td>TCJD107M020#0055E</td> <td>D</td> <td>100</td> <td>20</td> <td>105</td> <td>200</td> <td>6</td> <td>55</td> <td>2000</td> <td>3</td> <td>3</td> <td>12.4</td> <td>136</td> <td>39.3</td>	TCJD107M020#0055E	D	100	20	105	200	6	55	2000	3	3	12.4	136	39.3					
Z5 Volt @ 85°C         Z5 Volt @ 85°C         Z5 Volt @ 85°C           TCNT226M025#000E         T         22         25         105         55         6         200         700         3         4         4.3         364         43.9           TCNX476M025#0100E         X         47         25         105         117.5         6         100         1300         2         3         13.3         146         42.3           TCJD107M025#0107E         D         100         25         105         250         6         70         1800         2         3         13.3         146         42.3           TCM107M025#0107E         D         100         25         105         250         6         100         1380         2         4         19.6         215         62.3           TCN4137M025#0707E         4         150         25         105         375         8         70         1650         2         4         29.3         329         65.9           TCN4257M025#0702E         8         150         25         105         16.5         6         300         600         2         5         1.8         186         18.6	TCN4227M020#0100E	4	220	20	85	440	10	100	1380	5	4	27.2	305	61.1						
TCNT226M025#0200E         T         22         25         105         55         6         200         700         3         4         4.3         364         43.9           TCNX476M025#0100E         X         47         25         105         117.5         6         100         1300         2         5         9.2         195         29.3           TCD.0666M025#0070E         D         68         25         105         250         6         70         1800         2         3         13.3         146         42.3           TCJD107M025#0070E         D         100         25         105         250         6         70         1800         2         3         19.6         215         62.3           TCN4157M025#0070E         4         150         25         105         375         8         70         1650         2         4         29.3         329         65.9           TCN4257M025#0070E         8         150         25         105         550         10         100         1380         3         4         43.0         483         96.7           TCN4275M035#0300E         L         4.7         35         105					25 Volt @ 85	°C			·	•			25 Volt @ 85°C							
TCNX476M025#0100E         X         47         25         105         117.5         6         100         1300         2         5         9.2         195         29.3           TCJD666M025#0070E         D         68         25         105         170         6         70         1800         2         3         13.3         146         42.3           TCJD107M025#0100E         D         100         25         105         250         6         70         1800         2         3         19.6         215         62.3           TCN4107M025#0100E         4         150         25         105         375         6         70         1650         2         4         29.3         329         65.9           TCN4157M025#0100E         4         220         25         105         550         10         100         1380         3         4         43.0         483         96.7           TCN425M035#0300E         L         4.7         35         105         16.5         6         300         600         2         5         1.8         186         18.6           TCN1425M035#0200E         T         4.7         35         105 <td>TCNT226M025#0200E</td> <td>Т</td> <td>22</td> <td>25</td> <td>105</td> <td>55</td> <td>6</td> <td>200</td> <td>700</td> <td>3</td> <td>4</td> <td>4.3</td> <td>364</td> <td>43.9</td>	TCNT226M025#0200E	Т	22	25	105	55	6	200	700	3	4	4.3	364	43.9						
TCJD686M025#0070E         D         68         25         105         170         6         70         1800         2         3         13.3         146         42.3           TCJD107M025#00070E         D         100         25         105         250         6         70         1800         2         3         19.6         215         62.3           TCN4107M025#0070E         4         150         25         105         375         6         70         1650         2         4         29.3         329         65.9           TCN4157M025#0070E         8         150         25         105         375         8         70         1650         2         4         29.3         329         65.9           TCN425#0100E         4         220         25         105         150         10         100         1380         3         4         43.0         483         96.7           TCN1475M035#0300E         L         4.7         35         105         16.5         6         300         600         2         5         1.8         186         18.6           TCN1475M035#0300E         T         10         35         105	TCNX476M025#0100E	Х	47	25	105	117.5	6	100	1300	2	5	9.2	195	29.3						
TC.JD107M025#0070E         D         100         25         105         250         6         70         1800         2         3         19.6         215         62.3           TCN4107M025#0070E         4         100         25         105         375         6         70         1650         2         4         19.6         219         43.9           TCN4157M025#0070E         8         150         25         105         375         8         70         1650         2         4         29.3         329         65.9           TCN4257M025#0070E         8         150         25         105         550         10         100         1380         3         4         43.0         483         96.7           TCNL475M035#0300E         L         4.7         35         105         16.5         10         200         700         3         4         1.8         154         18.6           TCN1475M035#0200E         T         4.7         35         105         35         10         200         700         3         4         3.9         328         39.5           TCN1106M035#0150E         T         10         35         105 <td>TCJD686M025#0070E</td> <td>D</td> <td>68</td> <td>25</td> <td>105</td> <td>170</td> <td>6</td> <td>70</td> <td>1800</td> <td>2</td> <td>3</td> <td>13.3</td> <td>146</td> <td>42.3</td>	TCJD686M025#0070E	D	68	25	105	170	6	70	1800	2	3	13.3	146	42.3						
TCN4107M025#0100E         4         100         25         105         250         6         100         1380         2         4         19.6         219         43.9           TCN4157M025#0070E         4         150         25         105         375         6         70         1650         2         4         29.3         329         65.9           TCN457M025#0070E         4         220         25         105         550         10         100         1380         3         4         43.0         483         96.7           TCN4227M025#0100E         4         220         25         105         550         10         100         1380         3         4         43.0         483         96.7           TCN427M025#0100E         4         7         35         105         16.5         10         200         700         3         4         1.8         18.6         18.6           TCN1475M035#0200E         T         10         35         105         35         10         200         700         3         4         3.9         328         39.5           TCN1106M035#0100E         D         22         35	TCJD107M025#0070E	D	100	25	105	250	6	70	1800	2	3	19.6	215	62.3						
TCNA157M025#0070E         4         150         25         105         375         6         70         1650         2         4         29.3         329         65.9           TCN8157M025#0070E         8         150         25         105         550         10         100         1380         3         4         43.0         483         96.7           TCN4257M025#0100E         4         220         25         105         550         10         100         1380         3         4         43.0         483         96.7           Stolt@85*C         35 Volt@85*C           TCNL475M035#0300E         L         4.7         35         105         16.5         6         300         600         2         5         1.8         186         18.6           TCNT475M035#0200E         T         4.7         35         105         35         10         200         700         3         4         3.9         328         39.5           TCNT106M035#0200E         T         10         35         105         52.5         6         200         900         3         3         5.8         116         30.3	TCN4107M025#0100E	4	100	25	105	250	6	100	1380	2	4	19.6	219	43.9						
TCN8157M025#0070E         8         150         25         105         375         8         70         1650         2         3         29.3         329         65.9           TCN4227M025#0100E         4         220         25         105         550         10         100         1380         3         4         43.0         483         96.7 <b>35 Volt@ 85°C 35 Volt@ 85°C 16.5</b> 10         200         700         3         4         1.8         154         18.6 <b>10</b> 35         105         35         10         200         700         3         4         3.9         328         39.5 <b>10</b> 35         105         52.5         6         200         900         3         3         5.8         116         30.3 <b>TCN16M035#0200E</b> C         15         105 <td>TCN4157M025#0070E</td> <td>4</td> <td>150</td> <td>25</td> <td>105</td> <td>375</td> <td>6</td> <td>70</td> <td>1650</td> <td>2</td> <td>4</td> <td>29.3</td> <td>329</td> <td>65.9</td>	TCN4157M025#0070E	4	150	25	105	375	6	70	1650	2	4	29.3	329	65.9						
TCN4227M025#0100E         4         220         25         105         550         10         100         1380         3         4         43.0         483         96.7           St Volt @ 85°C         35 Volt @ 85°C           TCNL475M035#0200E         L         4.7         35         105         16.5         6         300         600         2         5         1.8         186         18.6           TCNL475M035#0200E         T         4.7         35         105         16.5         10         200         700         3         4         1.8         154         18.6           TCNT475M035#0200E         T         10         35         105         35         10         200         700         3         4         3.9         32.8         39.5           TCNT106M035#0200E         T         10         35         105         35         10         200         700         3         4         3.9         32.8         39.5           TCJD256M035#0200E         C         15         35         105         77         6         100         1500         2         3         8.5	TCN8157M025#0070E	8	150	25	105	375	8	70	1650	2	3	29.3	329	65.9						
35 Volt @ 85°C         35 Volt @ 85°C           TCNL475M035#0300E         L         4.7         35         105         16.5         6         300         600         2         5         1.8         186         18.6           TCNL475M035#0300E         T         4.7         35         105         16.5         10         200         700         3         4         1.8         154         18.6           TCNT475M035#0200E         T         10         35         105         35         10         200         700         3         4         3.9         32.8         39.5           TCNT106M035#0200E         T         10         35         105         52.5         6         200         900         3         3         5.8         116         30.3           TCJD26M035#0100E         D         22         35         105         77         6         100         1500         2         3         8.5         94         27.1           TCJD236M035#0100E         X         47         35         105         165         10         150         1100         3         4         18.2         387         58.0	TCN4227M025#0100E	4	220	25	105	550	10	100	1380	3	4	43.0	483	96.7						
TCNL475M035#0300E         L         4.7         35         105         16.5         6         300         600         2         5         1.8         186         18.6           TCNT475M035#0200E         T         4.7         35         105         16.5         10         200         700         3         4         1.8         154         18.6           TCNT106M035#0150E         T         10         35         105         35         10         150         800         3         4         3.9         328         39.5           TCNT106M035#0150E         T         10         35         105         35         10         200         700         3         4         3.9         328         39.5           TCJC156M035#0200E         C         15         35         105         77         6         100         1500         2         3         8.5         94         27.1           TCD336M035#070E         D         33         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCNX476M035#0150E         X         47         35         105					35 Volt @ 85	°C							35 Volt @ 85°C							
TCNT475M035#0200E         T         4.7         35         105         16.5         10         200         700         3         4         1.8         154         18.6           TCNT106M035#0150E         T         10         35         105         35         10         150         800         3         4         3.9         328         39.5           TCNT106M035#0200E         T         10         35         105         35         10         200         700         3         4         3.9         328         39.5           TCNT106M035#0200E         C         15         35         105         52.5         6         200         900         3         3         5.8         116         30.3           TCJD256M035#0100E         D         22         35         105         77         6         100         1500         2         3         8.5         94         27.1           TCD336M035#0100E         D         33         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCNX476M035#0100E         X         47         35         105	TCNL475M035#0300E	L	4.7	35	105	16.5	6	300	600	2	5	1.8	186	18.6						
TCNT106M035#0150E         T         10         35         105         35         10         150         800         3         4         3.9         328         39.5           TCNT106M035#0200E         T         10         35         105         35         10         200         700         3         4         3.9         328         39.5           TCNT106M035#0200E         C         15         35         105         52.5         6         200         900         3         3         5.8         116         30.3           TCJC156M035#0100E         D         22         35         105         77         6         100         1500         2         3         8.5         94         27.1           TCJD336M035#0070E         D         33         35         105         115.5         6         70         1800         2         3         12.8         141         40.7           TCNX476M035#0150E         X         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN417M035#0100E         Z         47         35         105	TCNT475M035#0200E	Т	4.7	35	105	16.5	10	200	700	3	4	1.8	154	18.6						
TCN1106M035#0200E         T         10         35         105         35         10         200         700         3         4         3.9         328         39.5           TCJC156M035#0200E         C         15         35         105         52.5         6         200         900         3         3         5.8         116         30.3           TCJD226M035#0100E         D         22         35         105         77         6         100         1500         2         3         8.5         94         27.1           TCJD336M035#0070E         D         33         35         105         115.5         6         70         1800         2         3         12.8         141         40.7           TCNX476M035#0150E         X         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN4476M035#0150E         Z         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN4107M035#0100E         4         100         35         105	TCNT106M035#0150E	T	10	35	105	35	10	150	800	3	4	3.9	328	39.5						
TCJC156M035#0200E         C         15         35         105         52.5         6         200         900         3         3         5.8         116         30.3           TCJD226M035#0100E         D         22         35         105         77         6         100         1500         2         3         8.5         94         27.1           TCJD336M035#0100E         D         33         35         105         175.5         6         70         1800         2         3         8.5         94         27.1           TCJD336M035#0170E         X         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCNZ476M035#0150E         Z         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCNZ476M035#0100E         Z         47         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105	TCNT106M035#0200E	Т	10	35	105	35	10	200	700	3	4	3.9	328	39.5						
TCJD226M035#0100E         D         22         35         105         77         6         100         1500         2         3         8.5         94         27.1           TCJD236M035#0070E         D         33         35         105         115.5         6         70         1800         2         3         8.5         94         27.1           TCJD336M035#0070E         D         33         35         105         115.5         6         70         1800         2         3         12.8         141         40.7           TCNX476M035#0150E         X         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN476M035#0150E         Z         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN476M035#0100E         4         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105	TCJC156M035#0200E	С	15	35	105	52.5	6	200	900	3	3	5.8	116	30.3						
TCDX350M/05350070E         D         33         35         105         115.5         6         70         1800         2         3         12.8         141         40.7           TCNX476M035#0150E         X         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCNX476M035#0150E         Z         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN2476M035#0150E         Z         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN4107M035#0100E         4         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         105         350 <t< td=""><td>TCJD226M035#0100E</td><td>D</td><td>22</td><td>35</td><td>105</td><td>17</td><td>6</td><td>100</td><td>1500</td><td>2</td><td>3</td><td>8.5</td><td>94</td><td>27.1</td></t<>	TCJD226M035#0100E	D	22	35	105	17	6	100	1500	2	3	8.5	94	27.1						
LUNX4/70MU35#0150E         X         4/         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN2476M035#0150E         Z         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN2476M035#0100E         Z         47         35         105         165         10         150         1100         3         4         18.2         387         58.0           TCN4107M035#0100E         4         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN2685M050#0200E         C         6.8         50 <t< td=""><td>TCJD336M035#0070E</td><td>U V</td><td>33</td><td>35</td><td>105</td><td>115.5</td><td>6</td><td>/0</td><td>1800</td><td>2</td><td>3</td><td>12.8</td><td>141</td><td>40.7</td></t<>	TCJD336M035#0070E	U V	33	35	105	115.5	6	/0	1800	2	3	12.8	141	40.7						
TCN2470700135#0130E         Z         4/         35         105         105         10         150         1100         3         4         18.2         387         58.0           TCN4107M035#0100E         4         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCL66850M050#0200E         C         6.8         50         105         34         8         200         900         3         3         5.4         108         28.2           TCL6156M050#0070E         D         105         50 <t< td=""><td>TCNX4/6M035#0150E</td><td>X</td><td>4/</td><td>35</td><td>105</td><td>165</td><td>10</td><td>150</td><td>1100</td><td>3</td><td>4</td><td>18.2</td><td>38/</td><td>58.0</td></t<>	TCNX4/6M035#0150E	X	4/	35	105	165	10	150	1100	3	4	18.2	38/	58.0						
TCN44107M033#0100E         4         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         105         350         10         100         1380         2         3         38.8         435         87.1           TCN8107M035#0100E         8         100         35         10         100         1380         2         3         38.8         435         87.1           TCJC685M050#0200E         C         6.8         50         105         34         8         200         900         3         3         5.4         108         28.2           TCJD106M050#0120E         D         10         50         105         50         10         120         1400         3         3         8.0         87         25.3           TC LE156M050#0070E         F         15         50         <	TONZ4/6MU35#0150E		4/	35	105	165	10	150	1100	3	4	18.2	387	58.0						
TCING 10 / MIDS 3#0 100E         0         100         33         103         330         10         100         1380         2         3         38.8         435         87.1           50 Volt @ 85°C           TCJC6685M050#0200E         C         6.8         50         105         34         8         200         900         3         3         5.4         108         28.2           TCJD106M050#0120E         D         10         50         105         50         10         120         1400         3         3         8.0         87         25.3           TC LE156M050#0070E         F         15         50         105         75         6         70         1000         3         3         110         92         290	TON4107M035#0100E	4	100	35	105	350	10	100	1380	2	3	38.8	435	8/.1						
So volue os c         So volue os c         So volue os c           TCJC685M050#0200E         C         6.8         50         105         34         8         200         900         3         3         5.4         108         28.2           TCJD106M050#0120E         D         10         50         105         50         10         120         1400         3         3         8.0         87         25.3           TC LE156M050#0070E         E         15         50         105         75         6         70         1900         3         3         110         92         29.0	1011010/10/10035#0100E	ō	100	30	50 Volt @ 05	30U	1 10	100	1380	2	3	30.0	430 50 Volt @ 85°C	87.1						
TCJD106M050#0200E         D         0.0         50         105         34         8         200         900         3         3         5.4         108         28.2           TCJD106M050#0120E         D         10         50         105         50         10         120         1400         3         3         8.0         87         25.3           TC IE156M050#0070E         E         15         50         105         75         6         70         1000         3         3         8.10         92         29.0	TO 1060EM0E0#0000E		6.0	50	50 VOIT @ 85	0		200	000	2		E 4	ວບ voit ພ 85°C	20.2						
ICUDITOR/USDUTZCE         D         IU         3U         IU         3U         IU         3U         IUU         3U         3         8.0         8/         25.3           TO_EIS6M050#070E         E         15         50         105         75         6         70         1000         3         3         8.0         8/         25.3	TCJC685M050#0200E	C	0.8	50	105	34	8	200	900	3	3	5.4	108	28.2						
	TC IE156M050#0120E	F	15	50	105	75	6	70	1400	3	3	11.0	07	20.0						

Energy is calculated by this formula (consider derating factor): Energy =  $\frac{1}{2}$  C x ((Vr x X)<sup>2</sup> - Vx<sup>2</sup>)

where C = Capacitance

Vr = Rated Voltage

X = Recommended derating factor

Vx= 3V (invariable)

Moisture Sensitivity Level (MSL) is defined according to J-STD-020. All technical data relates to an ambient temperature of +25°C. Capacitance is measured at 120Hz, 0.5RMS with DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes. ESR allowed to move up to 1.25 times catalog limit post mounting. For typical weight and composition see page 276.

NOTE: AVX reserves the right to supply higher voltage ratings in the same case size, to the same reliability standards.



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#### **RECOMMENDED DERATING FACTOR**

Voltage and temperature derating as percentage of Vr







Proc	Product Category 5										
100%											
95%	Rated Voltage										
90%	Recommended Application Voltage										
85%	for $Vr \leq 16 V$										
80%											
75%	Recommended Application Voltage for Vr > 20 V										
70%											
65%											
60%											
55%											
50%											
-53	5°C 85	°C									



The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.



#### PRODUCT CATEGORY 1 (TEMPERATURE RANGE -55°C TO +125°C)

TEST		Condition	I	Characteristics								
				Visual examination	no visibl	no visible damage						
	Apply rate	ed voltage (Ur) at 85°C	and /or 2/3 rated	DCL	1.25 x in	1.25 x initial limit						
Endurance	voltage (L	Jr) at 125°C for 2000 h se of <0 10/V. Stabilize	ours through a circuit	ΔC/C	within ±2	within ±20% of initial value						
	for 1-2 ho	urs before measuring.		DF	1.5 x init	ial limit						
				ESR	2 x initia	l limit						
				Visual examination	no visibl	e damage						
	Store at 1	25°C, no voltage applie	ed, for 2000 hours.	DCL	2 x initia	l limit						
Storage Life	Stabilize a	at room temperature fo	or 1-2 hours before	ΔC/C	within ±2	20% of initia	l value					
	measurin	g.		DF	1.5 x init	ial limit						
				ESR	2 x initia	l limit						
				Visual examination	no visib	le damage						
	Store at 6	5°C and 95% relative h	umidity for 500	DCL	3 x initia	al limit						
Humidity	temperati	ure and humidity for 1-2	2 hours before	ΔC/C	within +	30/-20% of	<sup>f</sup> initial va	lue				
	measurin	g.		DF	1.5 x ini	1.5 x initial limit						
				ESR	2 x initia	2 x initial limit						
	Step 1	lemperature°C +20	Duration(min) 15		+20°C	-55°C	+20°C	+85°C	+125°C	+20°C		
Temperature	2	-55 +20	15	DCL	IL*	n/a	IL*	10 x IL*	12.5 x IL*	IL*		
Stability	4	+85	15		n/a	+0/-20%	±5%	+20/-0%	+30/-0%	±5%		
	6	+20	15	DF	IL*	1.5 x IL*	IL*	1.5 x IL*	2 x IL*	IL*		
				Visual examination	no visible	no visible damage						
Surge	Apply 1.3x	: 0.6/x rated voltage (Ur) Juration 6 min (30 sec ch	at 125°C for 1000 parge 5 min 30 sec	DCL	initial lim	nit						
Voltage	discharge	) through a charge / disc	harge resistance of	ΔC/C	within +1 within +2	within +10/-20% of initial value for Vr $\leq$ 10V within +20/-30% of initial value for Vr $\geq$ 16V						
				DF	1.25 x in	1.25 x initial limit						
				Visual examination	no visib	no visible damage						
Machanical				DCL	initial lir	nit						
Shock	MIL-STD-:	202, Method 213, Cond	lition C	ΔC/C	within ±	5% of initia	l value					
SHOCK				DF	initial lir	nit						
				ESR	initial lir	nit						
				Visual examination	no visib	le damage						
				DCL	initial lir	nit						
Vibration	MIL-STD-	202, Method 204, Cond	lition D	ΔC/C	within ±	5% of initia	l value					
				DF	initial lir	nit						
				ESR	initial lir	nit						

\*Initial Limit

Initial measurement max. 1hr after the removal from dry pack or after pretreatment at 85°C for 24 hours.



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#### PRODUCT CATEGORY 2, 3 (TEMPERATURE RANGE -55°C TO +105°C)

TEST		Condition			Cha	Characteristics					
	Applyrate		for 2000 hours	Visual examination	no visibl	e damage					
	through a	circuit impedance of ≤	:0.1Ω/V (all	DCL	1.25 x in	itial limit					
Endurance	CATEGOR (CATEGOR 3) at 105°	IES). And / or apply rat RY 2) or 0.8x rated volt C for 2000 hours throu	ted voltage (Ur) age (CATEGORY igh a circuit	ΔC/C	within + within ±2	within +10/-20% of initial value for Vr $\leq$ 16V within ±20% of initial value for Vr $\geq$ 20V					
	impedanc	e of $\leq 0.1\Omega/V$ . Always s	tabilize at room	DF	1.5 x init	1.5 x initial limit					
	temperatu		e measuring.	ESR	2 x initia	l limit					
				Visual examination	no visibl	e damage					
	0	0500	d f== 0000	DCL	1.25 x in	itial limit					
Storage Life	hours. Sta	bilize at room tempera	ature for 1-2 hours	ΔC/C	within + within ±2	10/-20% of i 20% of initia	nitial valu I value for	e for Vr ≤ 16 · Vr ≥ 20V	δV		
		usunng.		DF	1.5 x init	ial limit					
				ESR	2 x initia	l limit					
				Visual examination	no visib	le damage					
	Store at 6	5°C and 95% relative h	umidity for 500	DCL	3 x initia	al limit					
Humidity	temperati	ire and humidity for 1-2	2 hours before	ΔC/C	within +	within +30/-20% of initial value					
	measuring	j.		DF	1.5 x ini	1.5 x initial limit					
				ESR	2 x initia	2 x initial limit					
	Step 1	Temperature°C +20	Duration(min) 15		+20°C	-55°C	+20°C	+85°C	+105°C	+20°C	
Temperature	2	-55	15	DCL	IL*	n/a	IL*	10 x IL*	12.5 x IL*	IL*	
Stability	4	+20	15	ΔC/C	n/a	+0/-20%	±5%	+20/-0%	+30/-0%	±5%	
	5	+105 +20	15	DF	IL*	1.5 x IL*	IL*	1.5 x IL*	2 x IL*	IL*	
	Apply 1 2y	rotod voltogo (Ur) ot 10		Visual examination	no visibl	no visible damage					
	2, or apply	1.3x 0.8x rated voltage (	(Ur) at 105°C for	DCL	initial lim	nit					
Surge Voltage	CATEGOR	Y 3 for 1000 cycles of du	iration 6 min (30	AC/C	within +	within +10/-20% of initial value for Vr $\leq$ 16V					
	sec charge	e, 5 min 30 sec discharge e resistance of 10000	e) through a charge	10,0	within +2	20/-30% of i	nitial value	e for Vr ≥ 20	V		
	,			DF	1.25 x in	1.25 x initial limit					
				Visual examination	no visib	le damage					
Mechanical				DCL	initial lir	nit					
Shock	MIL-STD-2	202, Method 213, Cond	lition C		within ±	5% of initia	l value				
					initial lir	nit					
				ESR	initial lir	nit					
				Visual examination	no visib	le damage					
				DCL	initial lir						
Vibration	MIL-STD-2	202, Method 204, Cond	lition D		within ±	5% of initia	i value				
						nit					
				ESK	initial lin	initial limit					

\*Initial Limit

Initial measurement max. 1hr after the removal from dry pack or after pretreatment at 85°C for 24 hours.



### **J-CAP<sup>™</sup> Series**

### Highest Joules/cc Conductive Polymer Solid Electrolytic Chip Capacitors



#### PRODUCT CATEGORY 5 (TEMPERATURE RANGE -55°C TO +85°C)

TEST		Condition		Characteristics								
				Visual examination	no visible d	no visible damage						
	Apply roted yelt	ana (Ur) at 9500 f	ar 2000 haura	DCL	1.25 x initia	ıl limit						
Endurance	through a circui at room temper	t impedance of ≤0 ature for 1-2 hours	or 2000 nours 1.1Ω/V. Stabilize s before	ΔC/C	within +10/ within ±20%	within +10/-20% of initial value for Vr $\leq$ 16V within ±20% of initial value for Vr $\geq$ 20V						
	measuring.			DF	1.5 x initial	1.5 x initial limit						
				ESR	2 x initial lir	nit						
				Visual examination	no visible d	amage						
				DCL	1.25 x initia	ıl limit						
Storage Life	Store at 85°C, n Stabilize at roor	o voltage applied, n temperature for	for 2000 hours. 1-2 hours	ΔC/C	within +10/ within ±20%	/-20% of initia % of initial val	l value for Vr µe for Vr ≥ 20	≤ 16V )V				
	berore measuring	ng.		DF	1.5 x initial	limit			-			
				ESR	2 x initial lir	nit						
				Visual examination	no visible	damage						
	Store at 65°C at	nd 95% relative hu	midity for 500	DCL	5 x initial l	5 x initial limit						
Humidity	hours, with no a	pplied voltage. St	abilize at room	ΔC/C	within +40	within +40/-20% of initial value						
-	measuring		nours before	DF	1.5 x initia	1.5 x initial limit						
	lineuounigi			ESR	2 x initial l	2 x initial limit						
	Step	Temperature°C	Duration(min)	_	+20°C	-55°C	+20°C	+85°C	+20°C			
Temperature	2	+20	15	DCL	IL*	n/a	IL*	10 x IL*	IL*			
Stability	3	+20	15	ΔC/C	n/a	+0/-20%	±5%	+20/-0%	±5%			
	5	+85	15	DF	IL*	1.5 x IL*	IL*	1.5 x IL*	IL*			
			•	Visual examination	no visible d	amage						
•	Apply 1.3x rated	voltage (Ur) at 85°C	for 1000 cycles	DCL	initial limit	initial limit						
Surge	discharge) throu	1 (30 sec charge, 5 r gh a charge / disch	min 30 sec arde resistance	AC/C	within +10/	within +10/-20% of initial value for Vr ≤ 16V						
voltage	of 1000Ω	gir a onarge / aloon			within +20/	within +20/-30% of initial value for Vr $\ge$ 20V						
				DF	1.25 x initia	1.25 x initial limit						
				Visual examination	no visible	no visible damage						
Machanical				DCL	initial limit							
Shook	MIL-STD-202, N	lethod 213, Condit	tion C	ΔC/C	within ±5%	of initial val	ue					
SHOCK				DF	initial limit	initial limit						
				ESR	initial limit	initial limit						
				Visual examination	no visible	damage						
				DCL	initial limit							
Vibration	MIL-STD-202, N	lethod 204, Condi	tion D	ΔC/C	within ±5%	of initial val	ue					
				DF	initial limit							
				ESR	initial limit	initial limit						

\*Initial Limit

Initial measurement max. 1hr after the removal from dry pack or after pretreatment at 85°C for 24 hours.



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#### SOLID ELECTROLYTIC CAPACITOR ROADMAP



### **FIVE CAPACITOR CONSTRUCTION STYLES**



#### **SERIES LINE UP** : Conductive Polymer



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