

For 600V to 5000V Applications

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[illegible]

Letter	A	C	E	F	G	X
Max.	0.813	1.448	1.8034	2.2098	2.794	0.940
Thickness	(0.032)	(0.057)	(0.071)	(0.087)	(0.110)	(0.037)

AVAX

High Voltage MLC Chips FLEXITERM®

For 600V to 5000V Applications

X7R Dielectric

Performance Characteristics

Capacitance Range	10 pF to 0.82 μ F (25°C, 1.0 $\pm$ 0.2 Vrms at 1kHz)
Capacitance Tolerances	$\pm$ 10%; $\pm$ 20%; +80%, -20%
Dissipation Factor	2.5% max. (+25°C, 1.0 $\pm$ 0.2 Vrms, 1kHz)
Operating Temperature Range	-55°C to +125°C
Temperature Characteristic	$\pm$ 15% (0VDC)
Voltage Ratings	600, 630, 1000, 1500, 2000, 2500, 3000, 4000 & 5000 VDC (+125°C)
Insulation Resistance (+25°C, at 500 VDC)	100K M Ω min. or 1000 M Ω - μ F min., whichever is less
Insulation Resistance (+125°C, at 500 VDC)	10K M Ω min. or 100 M Ω - μ F min., whichever is less
Dielectric Strength	Minimum 120% rated voltage for 5 seconds at 50 mA max. current

X7R CAPACITANCE RANGE

PREFERRED SIZES ARE SHADED

Case Size	0805					1206					1210					1808							1812						
Soldering	Reflow/Wave					Reflow/Wave					Reflow Only					Reflow Only							Reflow Only						
(L) Length	2.10 ±0.20 (0.083 ±0.008)					3.30 ±0.30 (0.130 ±0.012)					3.30 ±0.40 (0.130 ±0.016)					4.60 ±0.50 (0.181 ±0.020)							4.60 ±0.50 (0.181 ±0.020)						
(W) Width	1.25 ±0.20 (0.049 ±0.008)					1.60 ±0.30/-0.10 (0.063 ±0.012/-0.004)					2.50 ±0.30 (0.098 ±0.012)					2.00 ±0.20 (0.079 ±0.008)							3.20 ±0.30 (0.126 ±0.012)						
(T) Thickness	1.35 (0.053)					1.80 (0.071)					2.80 (0.110)					2.20 (0.087)							2.80 (0.110)						
(t) Terminal	0.50 ±0.20 (0.020 ±0.008)					0.60 ±0.20 (0.024 ±0.008)					0.75 ±0.35 (0.030 ±0.014)					0.75 ±0.35 (0.030 ±0.014)							0.75 ±0.35 (0.030 ±0.014)						
Voltage(V)	600	630	1000	600	630	1000	1500	2000	600	630	1000	1500	2000	600	630	1000	1500	2000	2500	3000	4000	600	630	1000	1500	2000	2500	3000	4000
Cap (pF)	100	101	X	X	C	C	C	E	E	E	E	E	E																
	120	121	X	X	C	C	C	E	E	E	E	E	E																
	150	151	X	X	C	C	C	E	E	E	E	E	E																
	180	181	X	X	C	C	C	E	E	E	E	E	E																
	220	221	X	X	C	C	C	E	E	E	E	E	E																
	270	271	X	X	C	C	C	E	E	E	E	E	E																
	330	331	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	E	E	E	F								
	390	391	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	E	E	E	F								
	470	471	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	E	E	F									
	560	561	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	E	F	F									
	680	681	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	750	751	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	820	821	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	1000	102	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	1200	122	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	1500	152	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	1800	182	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	2200	222	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	2700	272	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	3300	332	X	X	C	C	C	E	E	E	E	E	E	E	E	E	E	F	F										
	3900	392	X	X	C	C	C	E	E	E	E	E	G		E	E	E	F											
	4700	472	X	X	C	C	C	E	E	E	E	E	G		E	E	E	F											
	5600	562	X	X	C	C	C	E	E	E	E	E	G		E	E	E	F											
	6800	682	X	X	C	C	C	E	E	E	E	E		E	E	E	E	F											
	8200	822	X	X	C	C	C	E	E	E	E	E		E	E	E	E												
Cap (µF)	0.010	103	C	C	C	C	C	E	E	E	E	E		E	E	E	E												
	0.015	153	C	C	C	E	E	E	E	E	E	E		F	F	F	F												
	0.018	183	C	C	C	E	E	E	E	E	E	E		F	F	F	F												
	0.022	223	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.027	273	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.033	333	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.039	393	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.047	473	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.056	563	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.068	683	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.082	823	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.100	104	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.150	154	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.220	224	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.270	274	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.330	334	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.390	394	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.470	474	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.560	564	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.680	684	C	C	C	E	E	E	E	E	E	E		F	F	F													
	0.820	824	C	C	C	E	E	E	E	E	E	E		F	F	F													
	1.000	105	C	C	C	E	E	E	E	E	E	E		F	F	F													
Voltage(V)	600	630	1000	600	630	1000	1500	2000	600	630	1000	1500	2000	600	630	1000	1500	2000	2500	3000	4000	600	630	1000	1500	2000	2500	3000	4000
Case Size	0805					1206					1210					1808							1812						

High Voltage MLC Chips FLEXITERM®

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X7R CAPACITANCE RANGE
PREFERRED SIZES ARE SHADED

Case Size		1825								2220								2225								3640										
Soldering		Reflow Only								Reflow Only								Reflow Only								Reflow Only										
(L) Length	mm	4.60 ±0.50								5.70 ±0.50								5.72 ±0.25								9.14 ±0.25										
	(in.)	(0.181 ±0.020)								(0.224 ±0.020)								(0.225 ±0.010)								(0.360 ±0.010)										
(W) Width	mm	6.30 ±0.40								5.00 ±0.40								6.35 ±0.25								5.72 ±0.25										
	(in.)	(0.248 ±0.016)								(0.197 ±0.016)								(0.250 ±0.010)								(0.225 ±0.010)										
(T) Thickness	mm	3.40								3.40								2.54								2.54										
	(in.)	(0.134)								(0.134)								(0.100)								(0.100)										
(t) Terminal	min	0.75 ±0.35								0.85 ±0.35								0.85 ±0.35								0.76 (0.030)										
	max	(0.030 ±0.014)								(0.033 ±0.014)								(0.033 ±0.014)								1.52 (0.062)										
Voltage (V)		600	630	1000	1500	2000	2500	3000	4000	600	630	1000	1500	2000	2500	3000	4000	5000	600	630	1000	1500	2000	2500	3000	4000	5000	600	630	1000	1500	2000	2500	3000	4000	5000
Cap (pF)		100	101							100	101								100	101							100	101								
		120	121							120	121								120	121							120	121								
		150	151							150	151								150	151							150	151								
		180	181							180	181								180	181							180	181								
		220	221							220	221								220	221							220	221								
		270	271							270	271								270	271							270	271								
		330	331							330	331								330	331							330	331								
		390	391							390	391								390	391							390	391								
		470	471							470	471								470	471							470	471								
		560	561							560	561								560	561							560	561								
		680	681							680	681								680	681							680	681								
		750	751							750	751								750	751							750	751								
		820	821							820	821								820	821							820	821								
		1000	102	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		1200	122	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		1500	152	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		1800	182	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		2200	222	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		2700	272	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		3300	332	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		3900	392	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		4700	472	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		5600	562	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		6800	682	F	F	F	G	G	G	G	G	G	G	G	G	G	G	G	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
		8200	822	F	F	F	G	G	G	G	G	G	G	G	G	G	G	G	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G		
Cap (µF)	0.010	103	F	F	F	G	G	G	G	F	F	F	G	G	G	G	G	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.015	153	F	F	F	G	G	G	G	F	F	F	G	G	G	G	G	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.018	183	F	F	F	G	G	G	G	F	F	F	G	G	G	G	G	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.022	223	F	F	F	G	G	G	G	F	F	F	G	G	G	G	G	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.027	273	F	F	F	G	G	G	G	F	F	F	G	G	G	G	G	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.033	333	F	F	F	G	G	G	G	F	F	F	G	G	G	G	G	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.039	393	F	F	F	G	G	G	G	F	F	F	G	G	G	G	G	F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.047	473	F	F	F	P				F	F	F	G					F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.056	563	F	F	F	G				F	F	F	G					F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.068	683	F	F	G					F	F	G						F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.082	823	F	F	G					F	F	G						F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.100	104	F	F	G					F	F	G						F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.150	154	F	F						F	F	G						F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.220	224	F	F						F	F	G						F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.270	274	F	F						F	F							F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.330	334	F	F						F	F							F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.390	394	F	F						F	F							F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.470	474	F	F						F	F							F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.560	564	G	G						G	G							F	F	F	F	F	F	F	G	G	G	G	G	G	G	G	G	G		
	0.680	684								G	G							G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G		
	0.820	824								G	G							G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G		
	1.000	105								G	G							G	G																	
Voltage (V)		600	630	1000	1500	2000	2500	3000	4000	600	630	1000	1500	2000	2500	3000	4000	5000	600	630	1000	1500	2000	2500	3000	4000	5000	600	630	1000	1500	2000	2500	3000	4000	5000
Case Size		1825								2220								2225								3640										