

Transient Voltage Suppressors



TransGuard® Surface Mount (continued from pg. 100)

0805 Surface Mount

AVX Part Number	Working Voltage	Breakdown Voltage	Clamping Voltage	Peak Current	Transient Energy	Capacitance	Inductance
Symbol	V_{WM}	V_B	V_C	I_{peak}	E_{trans}	C	L
Units	Volts (max.)	Volts	Volts (max.)	Amp. (max.)	Joules (max.)	pF (typ.)	nH (typ.)
Test Condition	<50 μ A	1mA DC	8/20 μ S†	8/20 μ s	10/1000 μ S	0.5Vrms @: 1kHz 1MHz	di/dt = 100mA/nS
VC080503A100	3.3	4.1 ~ 6.0	10	40	0.1	1300 930	<1.5
VC080503C100	3.3	3.7 ~ 5.6	10	120	0.3	5500 4000	1.5
VC080505A150	5.6	7.6 ~ 9.3	15.5	40	0.1	1250 860	<1.5
VC080505C150	5.6	7.1 ~ 8.7	15.5	120	0.3	3500 2400	1.5
VC080509A200	9	11.0 ~ 14.0	20	40	0.1	780 585	<1.5
VC080512A250	12	14.0 ~ 18.3	25	40	0.1	525 400	<1.5
VC080514A300	14	16.5 ~ 20.3	30	40	0.1	375 280	<1.5
VC080514C300	14	15.9 ~ 19.4	30	120	0.3	1100 820	1.5
VC080518A400	18	22.9 ~ 28.0	40	30	0.1	350 275	<1.5
VC080518C400	18	22.5 ~ 27.5	40	100	0.3	650 500	1.5
VC080526A580	26	31.0 ~ 37.9	58	30	0.1	140 110	<1.5
VC080526C580	26	30.5 ~ 37.3	58	100	0.3	250 190	1.5
VC080530A650	30	37.0 ~ 46.0	65	30	0.1	100 80	<1.5

1206 Surface Mount

AVX Part Number	Working Voltage	Breakdown Voltage	Clamping Voltage	Peak Current	Transient Energy	Capacitance	Inductance
Symbol	V_{WM}	V_B	V_C	I_{peak}	E_{trans}	C	L
Units	Volts (max.)	Volts	Volts (max.)	Amp. (max.)	Joules (max.)	pF (typ.)	nH (typ.)
Test Condition	<50 μ A	1mA DC	8/20 μ S†	8/20 μ s	10/1000 μ S	0.5Vrms @: 1kHz 1MHz	di/dt = 100mA/nS
VC120603A100	3.3	4.1 ~ 6.0	10	40	0.1	2000 1500	<1.7
VC120603D100	3.3	3.7 ~ 5.6	10	150	0.4	4700 3800	1.7
VC120605A150	5.6	7.6 ~ 9.3	15.5	40	0.1	1200 870	<1.7
VC120605D150	5.6	7.1 ~ 8.7	15.5	150	0.4	3000 2300	1.7
VC120614A300	14	16.5 ~ 20.3	30	40	0.1	600 500	<1.7
VC120614D300	14	15.9 ~ 19.4	30	150	0.4	1200 900	1.7
VC120618A400	18	22.9 ~ 28.0	40	30	0.1	350 270	<1.7
VC120618D400	18	22.5 ~ 27.5	40	150	0.4	800 635	1.7
VC120626D580	26	30.5 ~ 37.3	58	120	0.4	550 450	1.7
VC120630D650	30	36.0 ~ 45.0	65	120	0.4	500 400	1.7
VC120648D101	48	56.0 ~ 68.0	100	100	0.4	225 185	1.7

1210 Surface Mount

AVX Part Number	Working Voltage	Breakdown Voltage	Clamping Voltage	Peak Current	Transient Energy	Capacitance	Inductance
Symbol	V_{WM}	V_B	V_C	I_{peak}	E_{trans}	C	L
Units	Volts (max.)	Volts	Volts (max.)	Amp. (max.)	Joules (max.)	pF (typ.)	nH (typ.)
Test Condition	<50 μ A	1mA DC	8/20 μ S†	8/20 μ s	10/1000 μ S	0.5Vrms @: 1kHz 1MHz	di/dt = 100mA/nS
VC121018J390	18	21.5 ~ 26.5	39	500	1.5	3100 2400	2.0
VC121026H560	26	29.7 ~ 36.3	56	300	1.2	2150 1675	2.0
VC121030G620	30	35.0 ~ 43.0	62	220	0.9	1900 1530	2.0
VC121030H620	30	35.0 ~ 43.0	62	280	1.2	1975 1575	2.0
VC121048G101	48	54.5 ~ 66.5	100	220	0.9	500 430	2.0
VC121048H101	48	54.5 ~ 66.5	100	250	1.2	525 450	2.0
VC121060J121	60	67.0 ~ 83.0	120	250	1.5	450 375	2.0

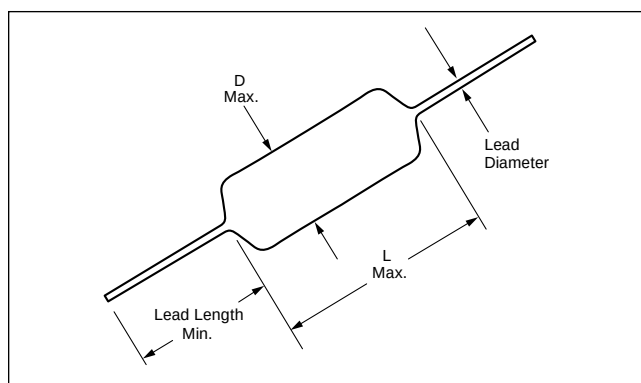
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Additional information on this product is available from AVX's catalog or AVX's FAX Service.
Call 1-800-879-1613 and request document #101. Visit our website <http://www.avxcorp.com>



Transient Voltage Suppressors

TransGuard® Axial Lead



	VA1000	VA2000
Body Length	(L) = 4.32mm. (.170" Max.)	4.83mm (.190" Max.)
Body Diameter	(D) = 2.54mm (.100" Max.)	3.56mm Max. (.140")
Lead Diameter	0.51 ± .05mm (.020 ± .002)	0.51 ± .05mm (.020 ± .002)
Lead Length	25.4mm (1" Min.)	25.4mm (1" Min.)

HOW TO ORDER

V A 1000 03 D 100 R

① ② ③ ④ ⑤ ⑥ ⑦

① **Product Designator:** V = Varistor (TransGuard®)

② **Case Designator:** A = Axial

③ **Case Size Designator**

④ **Working Voltage:**

Where: 03 = 3.3VDC; 26 = 26.0VDC;
05 = 5.6VDC; 30 = 30.0VDC;
14 = 14.0VDC; 48 = 48.0VDC;
18 = 18.0VDC; 60 = 60.0VDC

⑤ **Energy:**

Where: A = 0.1J; D = 0.4J; G = 0.9J; K = 2.0J;
B = 0.2J; E = 0.6J; H = 1.2J; V = 0.02J;
C = 0.3J; F = 0.7J; J = 1.5J; X = 0.05J

⑥ **Clamping Voltage:**

Where: 100 = 10.0V; 300 = 30.0V;
101 = 100.0V; 400 = 40.0V;
121 = 120.V; 580 = 58.0V;
150 = 15.5V; 650 = 65.0V2

⑦ **Standard Packaging (Pcs/Reel):**

Style	D	R	T
VA1000	1,000	3,000	7,500
VA2000	1,000	2,500	5,000

Axial Leaded Devices

AVX Part Number	Working Voltage	Breakdown Voltage	Clamping Voltage	Peak Current	Transient Energy	Capacitance	Inductance
Symbol	V_{WM}	V_B	V_C	I_{peak}	E_{trans}	C	L
Units	Volts (max.)	Volts	Volts (max.)	Amp. (max.)	Joules (max.)	pF (typ.)	nH (typ.)
Test Condition	<50μA	1mA DC	8/20μs†	8/20μs	10/1000μs	0.5Vrms @: 1kHz 1MHz	di/dt = 100mA/nS
VA100003A100	3.3	4.1 ~ 6.0	10	40	0.1	1500 1100	3.5
VA100003D100	3.3	3.7 ~ 5.6	10	150	0.4	4700 3800	3.5
VA100005A150	5.6	7.6 ~ 9.3	15.5	40	0.1	1000 750	3.5
VA100005D150	5.6	7.1 ~ 8.7	15.5	150	0.4	2800 2150	3.5
VA100014A300	14	16.5 ~ 20.3	30	40	0.1	400 300	3.5
VA100014D300	14	15.9 ~ 19.4	30	150	0.4	1200 900	3.5
VA100018A400	18	22.9 ~ 28.0	40	40	0.1	350 270	3.5
VA100018D400	18	22.5 ~ 27.5	40	150	0.4	900 700	3.5
VA100026D580	26	30.5 ~ 37.3	58	120	0.4	700 550	3.5
VA100030D650	30	36.0 ~ 45.0	65	120	0.4	600 500	3.5
VA100048D101	48	56.0 ~ 68.0	100	100	0.4	200 165	3.5
VA200060K121	60	67.0 ~ 83.0	120	300	2.0	400 340	3.5

V_{WM} —Maximum steady-state DC operating voltage the varistor can maintain and not exceed 50μA leakage current

V_B —Voltage across the device measured at 1mA DC current

V_C —Maximum peak voltage across the varistor measured at a specified pulse current and waveform

†Transient Energy Rating Pulse Current & Waveform
 .1 Joule 2A 8/20μs
 .2-.3 Joules 5A 8/20μs
 ≥.4Joules 10A 8/20μs

I_{peak} —Maximum peak current which may be applied with the specified waveform without device failure

E_{Trans} —Maximum energy which may be dissipated with the specific waveform without device failure

C—Device capacitance measured with zero volt bias at .5Vrms and 1kHz

L—Device inductance measured with a current edge rate of 100mA/nS

Dimensions: Millimeters (Inches)

Additional information on this product is available from AVX's catalog or AVX's FAX Service.
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