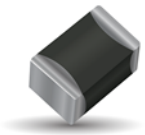
VCUG080100H1TP

(0805, 10Vdc, 0.3J, 100A, 550pF, Ni/Sn Term)

UltraGuard Multilayer Varistors

for Industrial and General applications



AVX UltraGuard multilayer varistors provide bi-directional overvoltage protection as well as EMI/RFI attenuation in a single SMT package with very low leakage ≤1µA. AVX MLVs are zinc oxide (ZnO) based ceramic semiconductor devices with non-linear voltage-current characteristics (bi-directional) similar to back-to-back zener diodes with added advantage of greater current and energy handling capabilities, very fast turn-on time, multiple strikes capabilities as well as EMI/RFI attenuation in the off-state.

Electrical Characteristics

Operating Temperature	-55 to +125°C

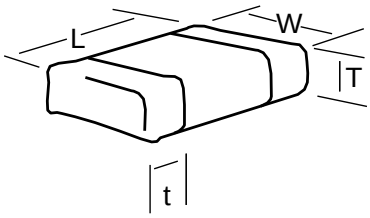
Case Size	V_W (DC)	V_W (AC)	V_B	V_C	I_{VC}	I_L	E_T	PP	I_P	Cap	Cap Tol
EIA	Vdc	Vac	V	V	A	µA	J	W	A	pF	-
0805	10	7.1	23	42	1	1	0.3	225	100	550	+100/-50%

V_W(DC)	DC Working Voltage [V]
V_W(AC)	AC Working Voltage [V]
V_B	Typical Breakdown Votage [V @ 1mA$_{DC}$]
V_C	Clamping Voltage [V @ I_{VC}]
I_{VC}	Test Current for V_C [A, 8x20µs]
I_L	Maximum leakage current at the working voltage [µA]
E_t	Transient Energy Rating [J, 10x1000µS]
PP	Peak Power Rating [W, 10x1000µS]
I_P	Peak Current Rating [A, 8x20µS]
Cap	Typical capacitance [pF] @1kHz and 0.5VRMS
Cap tol	Capacitance tolerance from typical value

Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0805	2.01±0.20	1.25±0.20	1.02 max	0.71 max
	(0.079±0.008)	(0.049±0.008)	(0.040 max)	(0.028 max)



Termination

Ni barrier/100% Sn plated termination for lead free soldering.

RoHS COMPLIANT

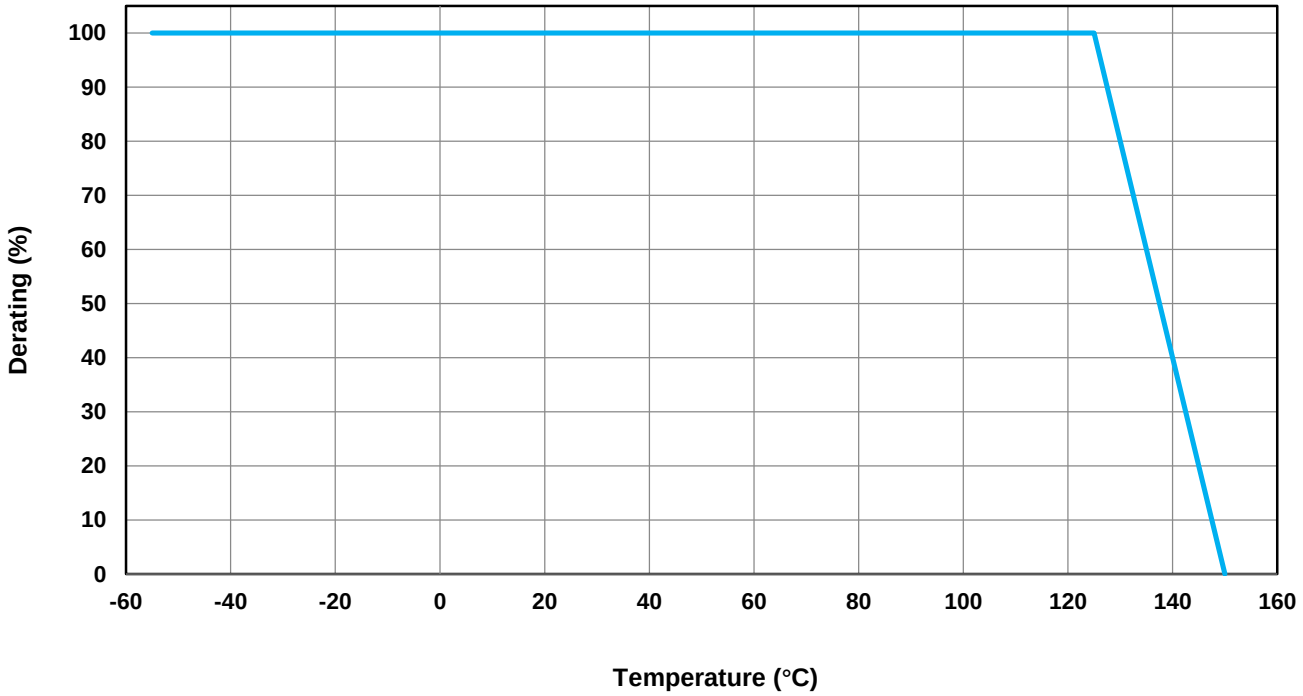
MSL 1

Pb Free 260°C

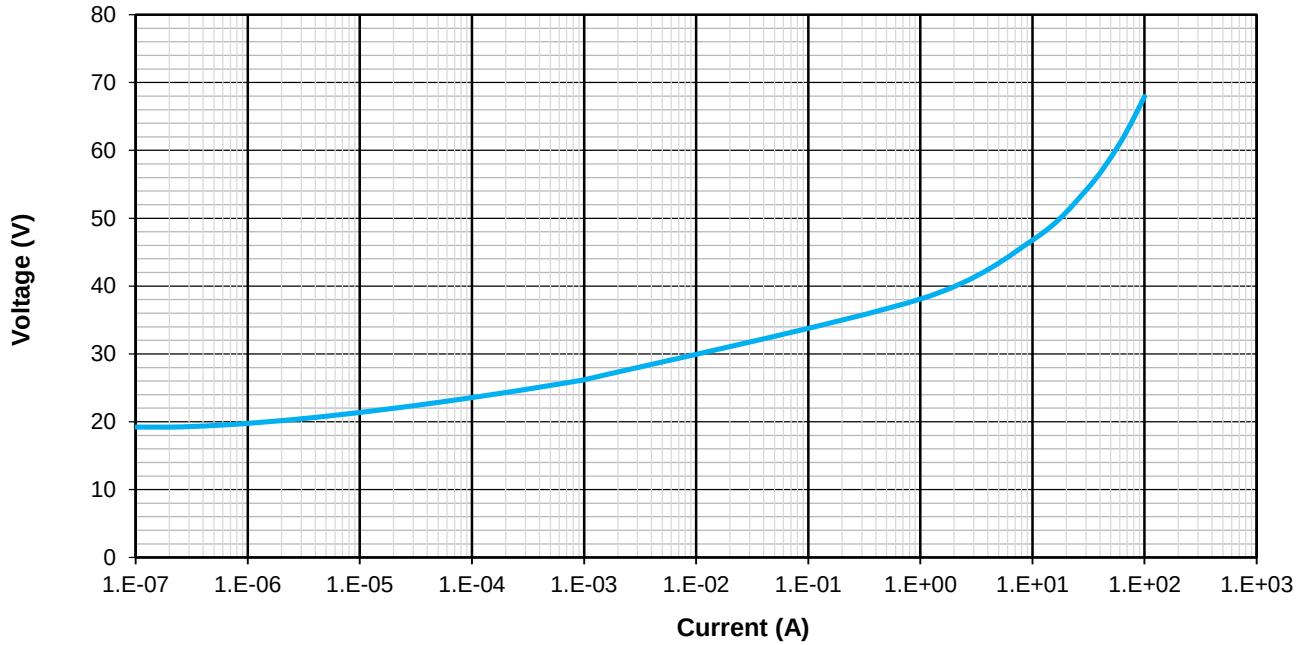
How to order (Packaging options)

VC	UG	08	0100	H	1	T	P
Varistor Chip	Low Leakage	Case Size	Working Voltage	Capacitance	No of Elements	Packaging	Termination
			0100 = 10Vdc	H = High	1 = 1 element	D = 7“ reel (1,000pcs) R = 7“ reel (4,000pcs) T = 13“ reel (10,000pcs)	P = Ni/Sn

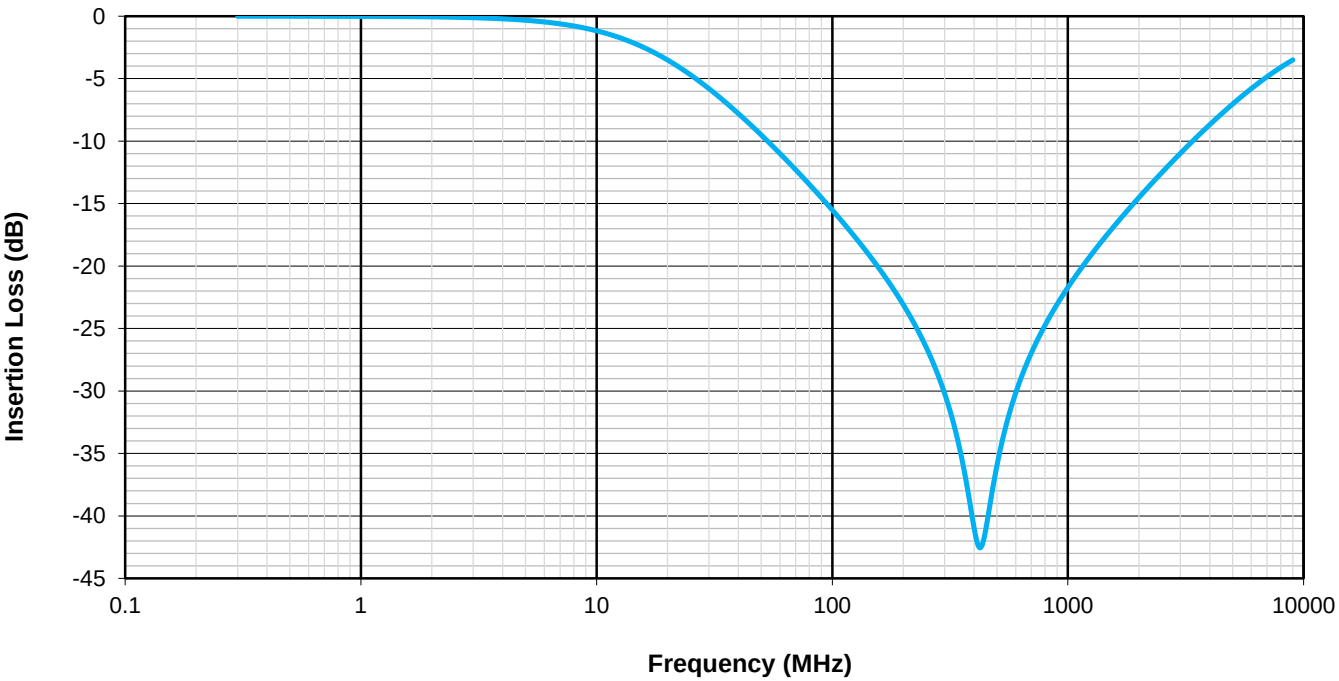
Typical Energy Derating Curve (Transient Energy, Peak Current, Power)



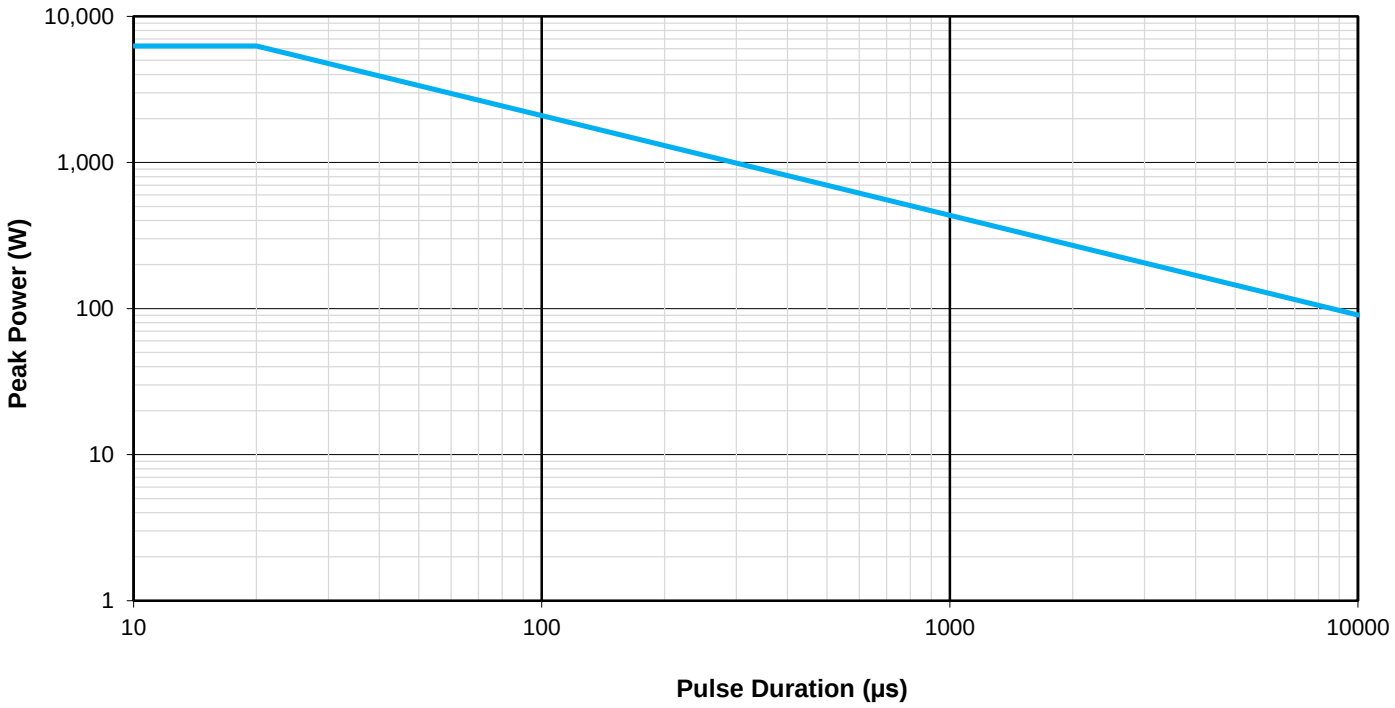
Voltage / Current Characteristics



S21 Characteristics



Power Derating



NOTICE: Specifications are subject to change without notice. All statements, information and data given herein are beleived to be accurate and reliable, but are presented without guarantee or responsibility of any kind, expressed or implied. Specifications are typical and may not apply to all applications.