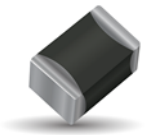
VCAS06LC18X500DP

(0603, 18Vdc, 0.05J, 30A, 50pF, Ni/Sn Term)

StaticGuard Automotive Multilayer Varistors

for Automotive applications



AEC-Q200 Qualified

AVX StaticGuard Automotive multilayer varistors provide bi-directional ESD protection and EMI/RFI attenuation in single compact component. Parts are lower capacitance versions of the TransGuard® and are designed for ESD protection where lower capacitance is needed e.g. datalines (LIN Bus, CAN,etc.), protection of CMOS, Bi-Polar, and SiGe based systems and more.

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	V_{JUMP}	P_{DISS}
EIA	Vdc	Vac	V	V	A	µA	J	W	A	pF	-	V (5min)	W
0603	18	14	25-40	50	1	10	0.05	38	30	50	+100/-50%	27.5	0.001

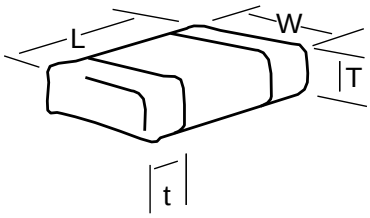
V_W(DC)	DC Working Voltage [V]
V_W(AC)	AC Working Voltage [V]
V_B	Typical Breakdown Votage [V @ 1mA$_{DC}$]
V_C	Clamping Voltage [V @ I_{VC}]
I_{VC}	Test Current for V_C [A, 8x20µs]
I_L	Maximum leakage current at the working voltage [µA]
E_t	Transient Energy Rating [J, 10x1000µS]

PP	Peak Power Rating [W, 10x1000µS]
I_P	Peak Current Rating [A, 8x20µS]
Cap	Typical capacitance [pF] @1MHz and 0.5VRMS
Cap tol	Capacitance tolerance from typical value
V_{JUMP}	Jump start voltage [V, 5min]
P_{DISS}	Max Power Dissipation [W]

Dimensions

mm (inches)

Size (EIA)	Length (L)	Width (W)	Thickness (T)	Terminal (t)
0603	1.60±0.15	0.80±0.15	0.9 max	0.35±0.15
	(0.063±0.006)	(0.031±0.006)	(0.035 max)	(0.014±0.006)



Termination

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

RoHS COMPLIANT

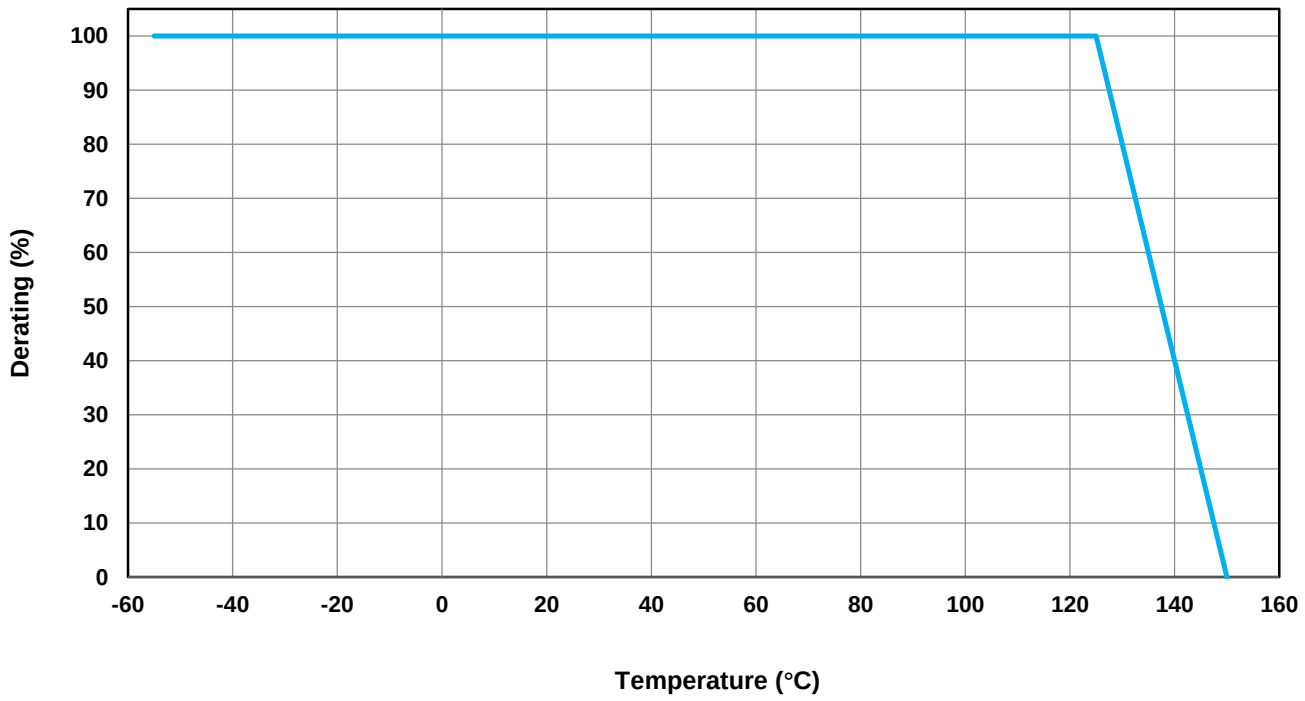
MSL 1

Pb Free 260°C

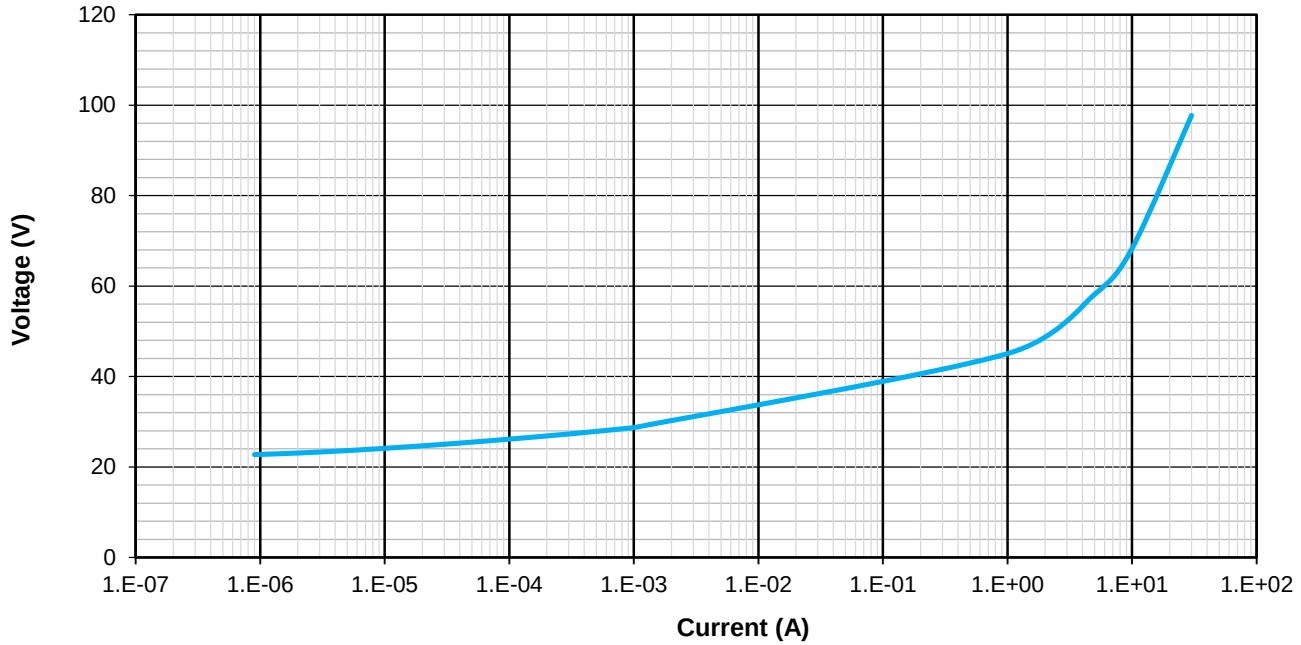
How to order (Packaging options)

VCAS	06	LC	18	X	500	D	P
Varistor Automotive Series	Case Size	Low Cap	Working Voltage	Energy Rating	Clamping Voltage	Packaging	Termination
	06 = 0603		18 = 18Vdc	X = 0.05J	500 = 50V	D = 7“ reel (1,000pcs) R = 7“ reel (4,000pcs) T = 13“ reel (10,000pcs)	P = Ni/Sn

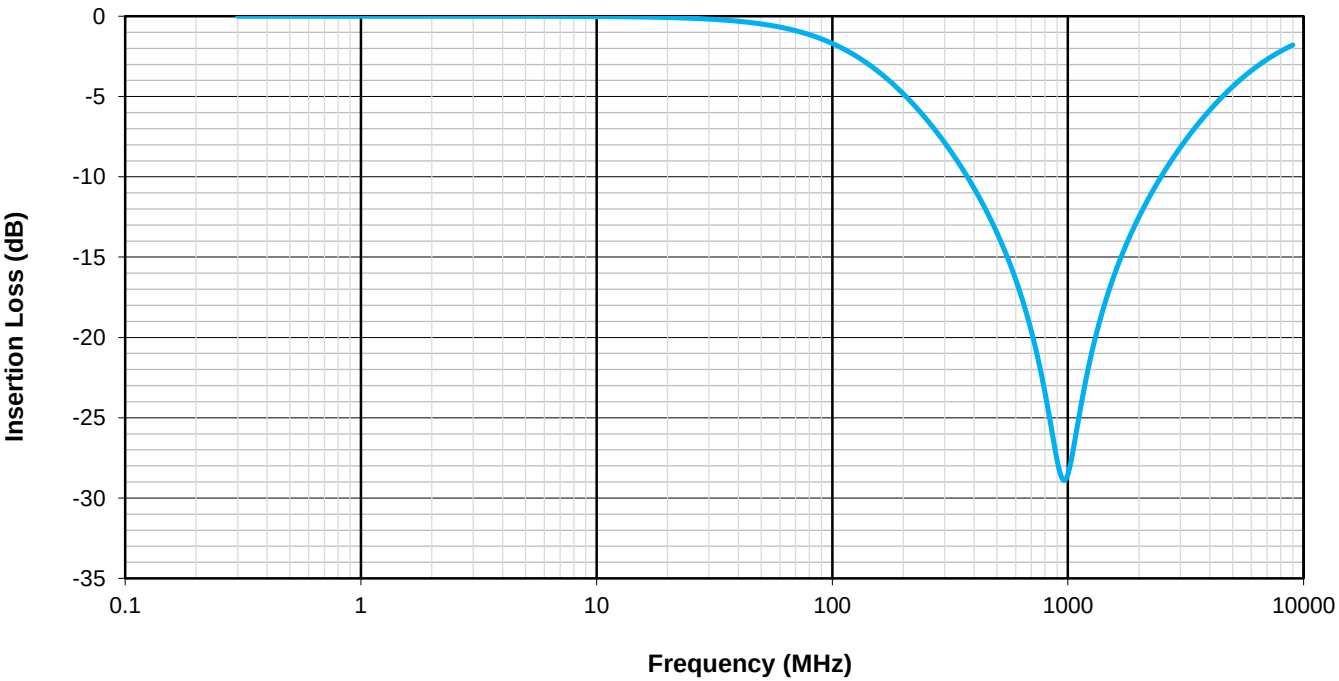
Typical Energy Derating Curve (Transient Energy, Peak Current, Power)



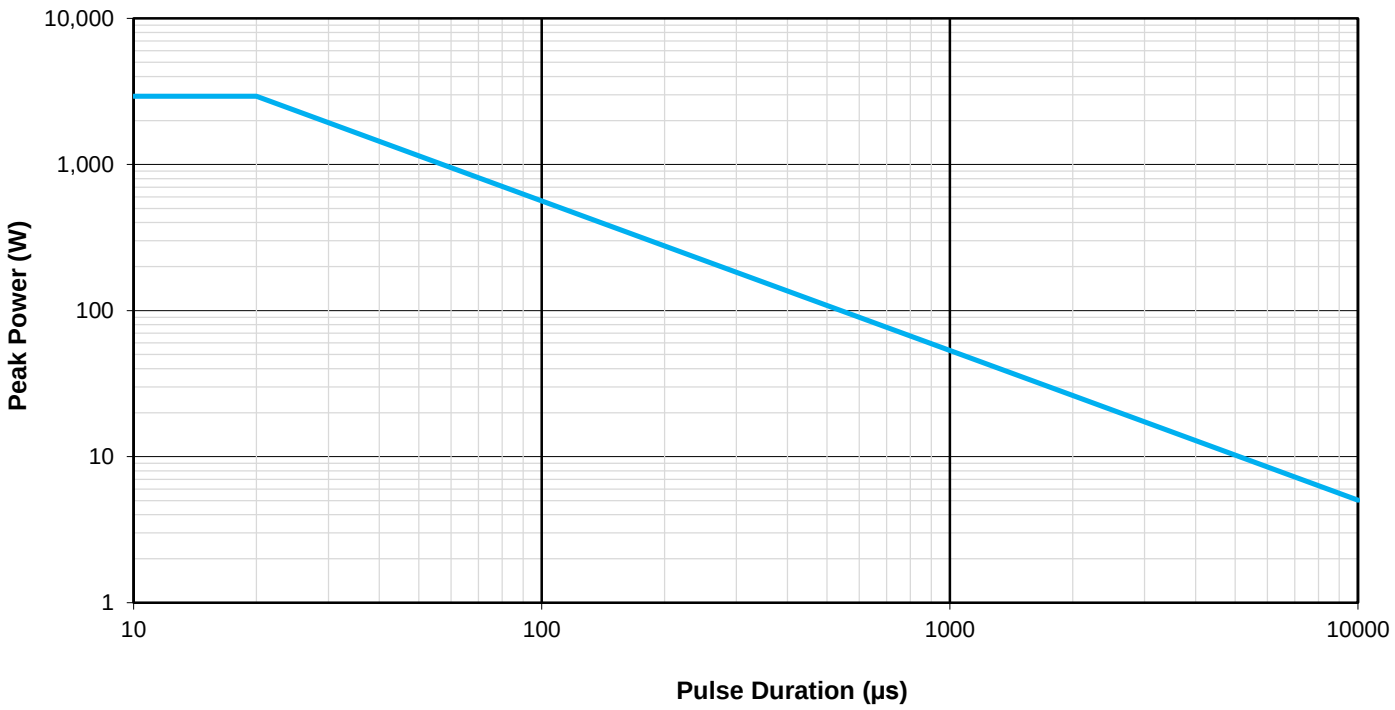
Voltage / Current Characteristics



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.