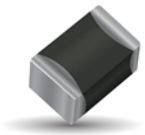
VCAC040230X380NWP

(0402, 30Vdc, 0.05J, 10A, 38pF, Ni/Sn Term)

Controlled Capacitance Multilayer Varistors

for Automotive, Industrial and General applications



AEC-Q200 Qualified

AVX Controlled Capacitance multilayer varistors provide bi-directional overvoltage protection as well as targeted EMI/RFI filtering. By controlling capacitance of the MLV, the center frequency and 20dB range for filtering purposes can be targeted. Controlled capacitance MLV can greatly improve overall system EMC performance and reduce system size.

Electrical Characteristics

Operating Temperature	-55 to +125°C

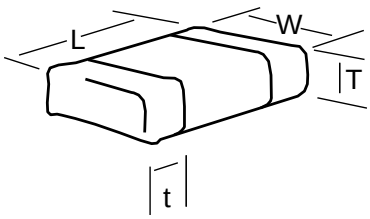
Case Size	V_W (DC)	V_W (AC)	V_B	V_C	I_{VC}	I_L	E_T	PP	I_P	Cap	Cap Tol
EIA	Vdc	Vac	V	V	A	µA	J	W	A	pF	-
0402	30	21	41±10%	67	1	5	0.05	38	10	38	±30%

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)
0402	1.00±0.10	0.50±0.10	0.6 max	0.25±0.15
	(0.040±0.004)	(0.020±0.004)	(0.024 max)	(0.010±0.006)



Termination

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

RoHS COMPLIANT

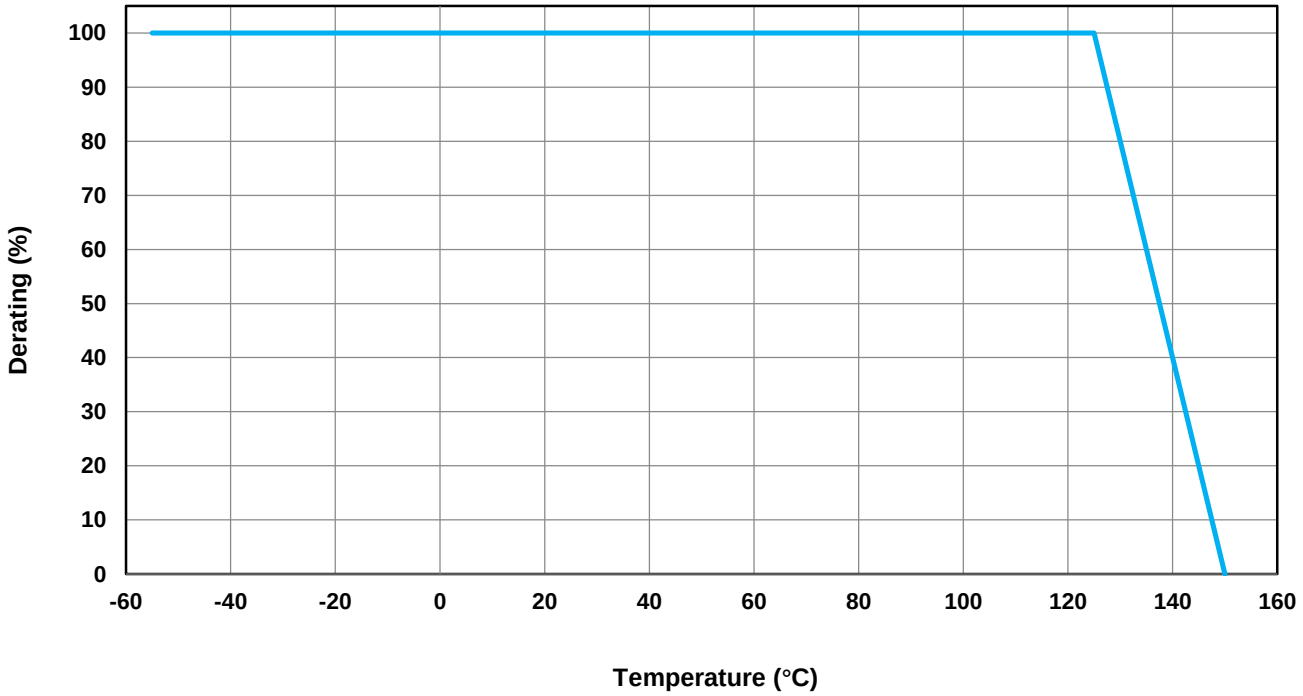
MSL 1

Pb Free 260°C

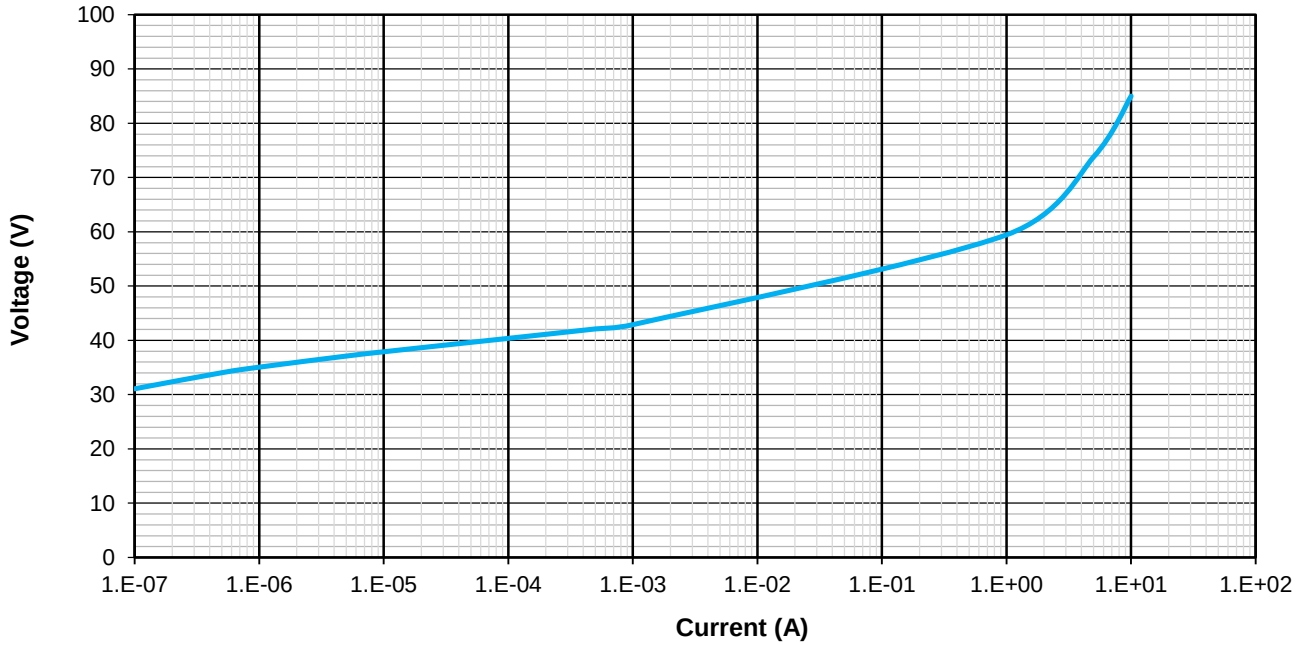
How to order (Packaging options)

VCAC	0402	30	X	380	N	W	P
Varistor Automotive Controlled Capacitance	Case Size	Working Voltage	Energy Rating	Capacitance	Capacitance Tolerance	Packaging	Termination
		30 = 30Vdc	X = 0.05J	380 = 38pF	N = ±30%	W = 7“ reel (10,000pcs)	P = Ni/Sn

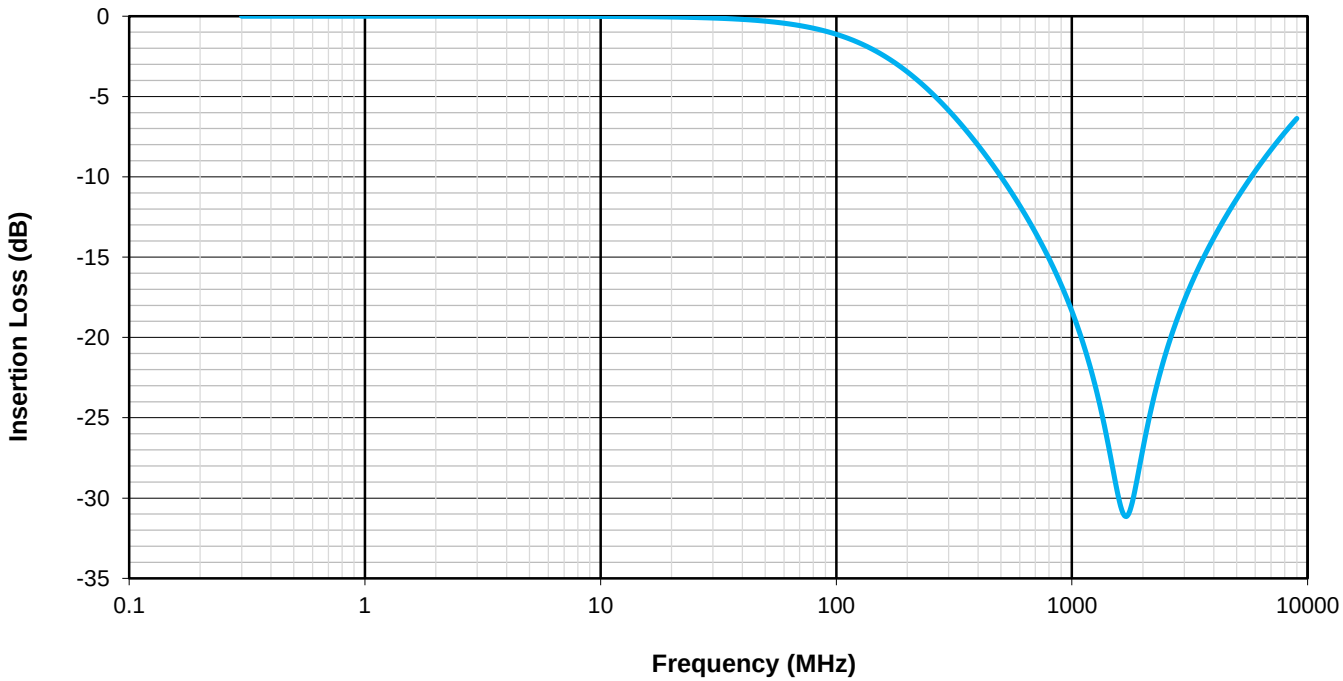
Typical Energy Derating Curve (Transient Energy, Peak Current, Power)



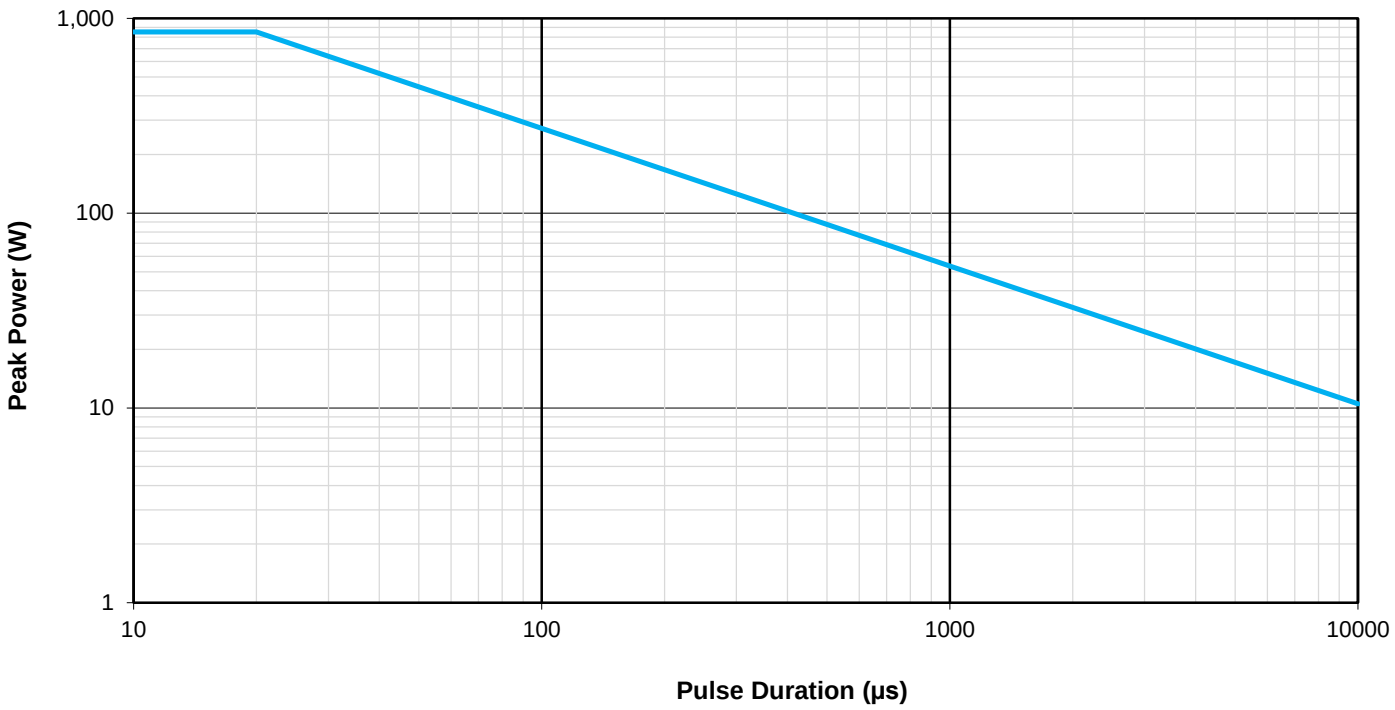
Voltage / Current Characteristics



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.