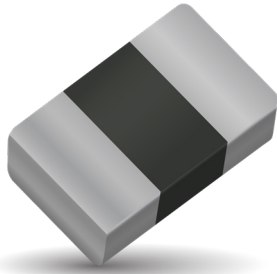


Controlled Capacitance Multilayer Varistor



GENERAL DESCRIPTION

The Controlled Capacitance TransGuard is an application specific bi-directional transient voltage suppressor developed for use in mixed signal environments. The Controlled Cap MLV has three purposes: 1) reduce emissions from a high speed ASIC, 2) prevent induced E fields from conducting into the IC, and 3) clamp transient voltages. By controlling capacitance of the MLV, the center frequency and 20db range for filtering purposes can be targeted. A Controlled Cap MLV can greatly improve overall system EMC performance and reduce system size.

GENERAL CHARACTERISTICS

- Operating Temperature: -55°C to +125°C
- Working Voltage: 9 - 30Vdc
- Case Size: 0402, 0603

FEATURES

- Single Chip Solution
- Targeted EMI/RFI Filtering
- 20dB Range for filtering purposes
- Improves system EMC performance
- Very fast response to ESD
- 25kV ESD

APPLICATIONS

- EMI TVS Module Control
- High Speed ASICS
- Mixed Signal Environment
- Sensors and more

HOW TO ORDER

VCAC	0603	22	A	470	N	R	P
Varistor Chip Automotive Capacitance	Chip Size 0402 0603	Working Voltage 09 = 9V 17 = 17V 22 = 22V 26 = 26V 30 = 30V	Energy Rating X = 0.05J A = 0.1J B = 0.2J C = 0.3J	Capacitance 15 = 15pF 330 = 33pF 380 = 38pF 470 = 47pF 820 = 82pF 102 = 1000pF	Tolerance N = ±30% M = ±20%	Packaging R = 4k pcs D = 7" reel (1,000 pcs) R = 7" reel (4,000 pcs) T = 13" reel (10,000 pcs) W = 7" Reel (10,000 pcs 0402 only)	Termination P = Ni Barrier/ 100% Sn (matte)



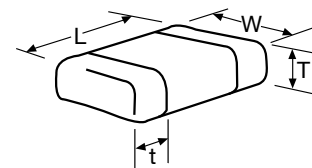
AVX Part Number	VW (DC)	VW (AC)	VB	VC	IL	ET	IP	Cap	Cap Tolerance	Case Size
VCAC060309B102N	9.0	6.4	12.7±15%	22	25	0.2	120	1000	±30%	0603
VCAC060317X150N	17	12	27±20%	52	10	0.05	2	15	±30%	0603
VCAC060317X330M	17	12	27±20%	52	10	0.05	2	33	±20%	0603
VCAC060322A470N	22	17	32.5±25%	50	10	0.1	30	47	30%	0603
VCAC060326C820M	26	20	36.0±15%	67	10	0.3	30	82	20%	0603
VCAC040230X380N	30	21	41±10%	67	5	0.05	10	38	±30%	0402

VW(DC)	DC Working Voltage [V]	I_L	Maximum leakage current at the working voltage, 25°C [µA]
VW(AC)	AC Working Voltage [V]	E_T	Transient Energy Rating [J, 10x1000µS]
VB	Breakdown Voltage [V @ 1mA]	I_p	Peak Current Rating [A, 8x20µS]
VC	Clamping Voltage [V @ 1A]	Cap	Capacitance [pF] @ 1KHz specified and 0.5VRMS, 25°C

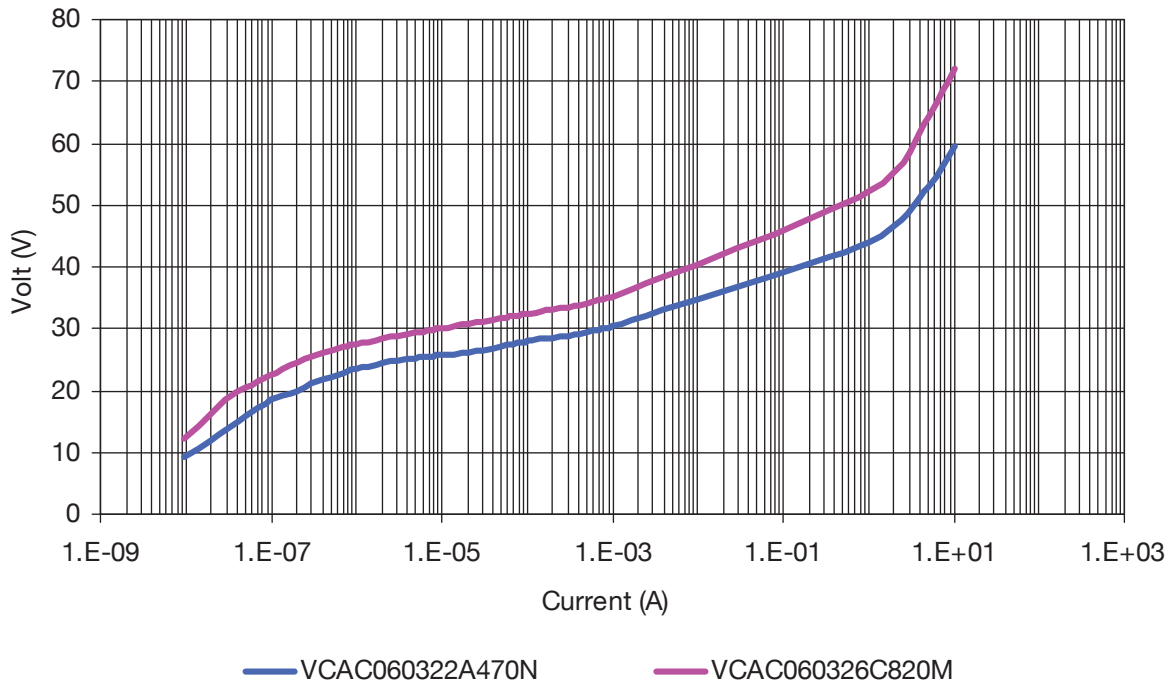
0603 DISCRETE DIMENSIONS

mm (inches)

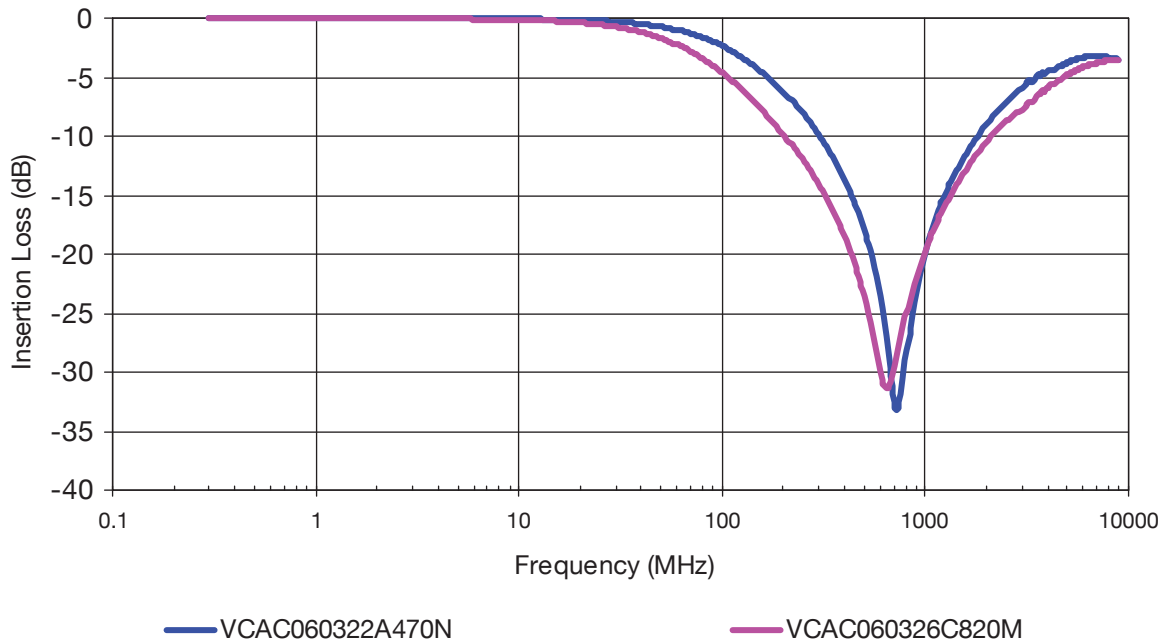
Size (EIA)	Length (L)	Width (W)	Max Thickness (T)	Land Length (t)
0402	1.00±0.10 (0.040±0.004)	0.50±0.10 (0.020±0.004)	0.60 (0.024)	0.25±0.15 (0.010±0.006)
0603	1.60±0.15 (0.063±0.006)	0.80±0.15 (0.031±0.006)	0.90 (0.035)	0.35±0.15 (0.014±0.006)



V-I Curve



S21



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Varistors](#) category:

Click to view products by [Kyocera AVX](#) manufacturer:

Other Similar products are found below :

[820443211E](#) [MLV0603E30403T](#) [MOV05131AIA](#) [MOV07231AQA](#) [MOV18131CZA](#) [R71ZOV151HC](#) [D58ZOV500RA01T1](#)
[B72214S110K151](#) [B72214S251K151](#) [B72260B102K1](#) [B72280B271K1](#) [B72500E8250L60](#) [B72530E1140S272](#) [B72540E250K62](#)
[B72650M0151K093](#) [B72660M0271K093](#) [NTE1V020](#) [NTE1V130](#) [NTE2V010](#) [NTE2V130](#) [ROV20-220M-S](#) [ROV20H201K](#) [25FN511K](#)
[S10K11G5S5](#) [ERZ-C07DK221U](#) [ERZ-C14DK361U](#) [ERZ-C20DK221U](#) [207869-1](#) [TMOV25SP625E](#) [TND10V-471KB00AAA0](#)
[B72210S271K111](#) [B72280B112K1](#) [B72280B381K1](#) [B72540E 350K 62](#) [B72590D360A60](#) [B72650M301K93](#) [B72670M1140K72](#)
[MOV07251ARA](#) [MOV10131EDA](#) [MOV10151EFA](#) [MOV14151CWA](#) [MOV20251DFA](#) [TVZ18EC271KBS](#) [TVZ20EB911KBS](#)
[TVZ25D201KBS](#) [TVZ25D241KBS](#) [VZ07D220KBS](#) [Z420LA20A](#) [ROV20H220M-S](#) [VZ40D241KQ-N](#)