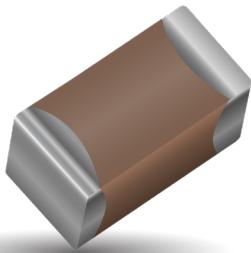


StaticGuard Automotive Series

Multilayer Varistors for Automotive Applications



GENERAL DESCRIPTION

The StaticGuard Automotive Series are low capacitance versions of the TransGuard and are designed for general ESD protection of CMOS, Bi-Polar, and SiGe based systems. The low capacitance makes these products suitable for use in automotive CAN and LIN bus communication lines as well as other high speed data transmission applications requiring low capacitance protection.

GENERAL CHARACTERISTICS

- Operating Temperature: -55°C to 125°C
- Working Voltage: $\leq 18\text{Vdc}$
- Case Size: 0402, 0603, 0805

FEATURES

- AEC Q200 Qualified
- ISO 7637 Pulse 1-3 capability
- Meet 27.5Vdc Jump Start requirements
- Multi-strike capability
- Sub 1nS response to ESD strike

APPLICATIONS

- CAN BUS
- LIN BUS
- CMOS
- Module interfaces
- Switches
- Sensors
- Camera modules
- Datalines
- Capacitance sensitive applications and more

HOW TO ORDER

VC	AS	06	LC	18	X	500	R	P
Varistor Chip	Series	Case Size	Low Cap Design	Working Voltage	Energy Rating	Clamping Voltage	Packaging (PCS/REEL)	Termination P = Ni/Sn
	AS = Automotive	04 = 0402		18 = 18.0VDC	A = 0.10 Joules V = 0.02 Joules X = 0.05 Joules	150 = 18V 200 = 22V 300 = 32V 400 = 42V 500 = 50V	D = 1,000 R = 4,000 T = 10,000 W = 0402 10000	
		06 = 0603						
		08 = 0805						

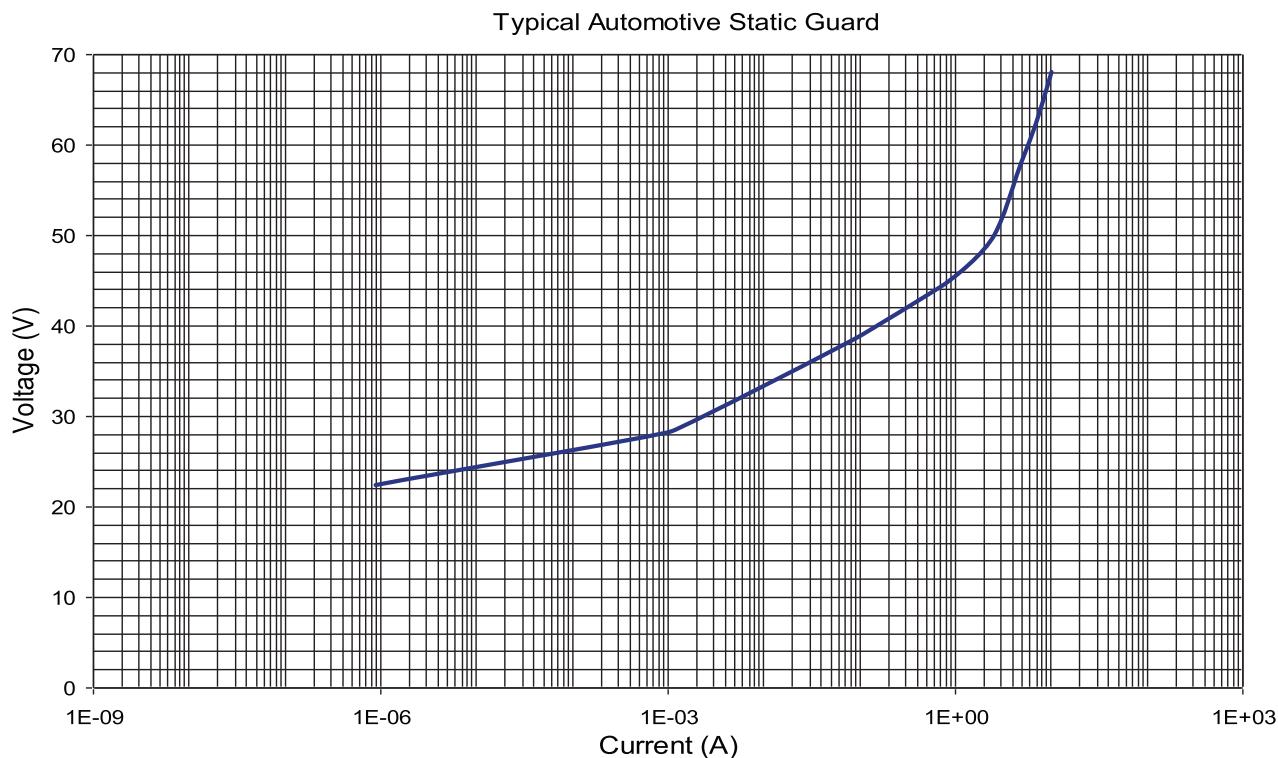


ELECTRICAL CHARACTERISTICS

Part Number	VW (DC)	VW (AC)	VB	VC	IVC	IL	ET	IP	Cap	Freq	VJUMP	PDISS	Size
VCAS04LC18V500	≤ 18.0	≤ 14.0	25-40	50	1	10	0.02	15	40	M	27.5	0.0004	0402
VCAS06LC18X500	≤ 18.0	≤ 14.0	25-40	50	1	10	0.05	30	50	M	27.5	0.001	0603
VCAS08LC18A500	≤ 18.0	≤ 14.0	25-40	50	1	10	0.1	30	80	M	27.5	0.002	0805

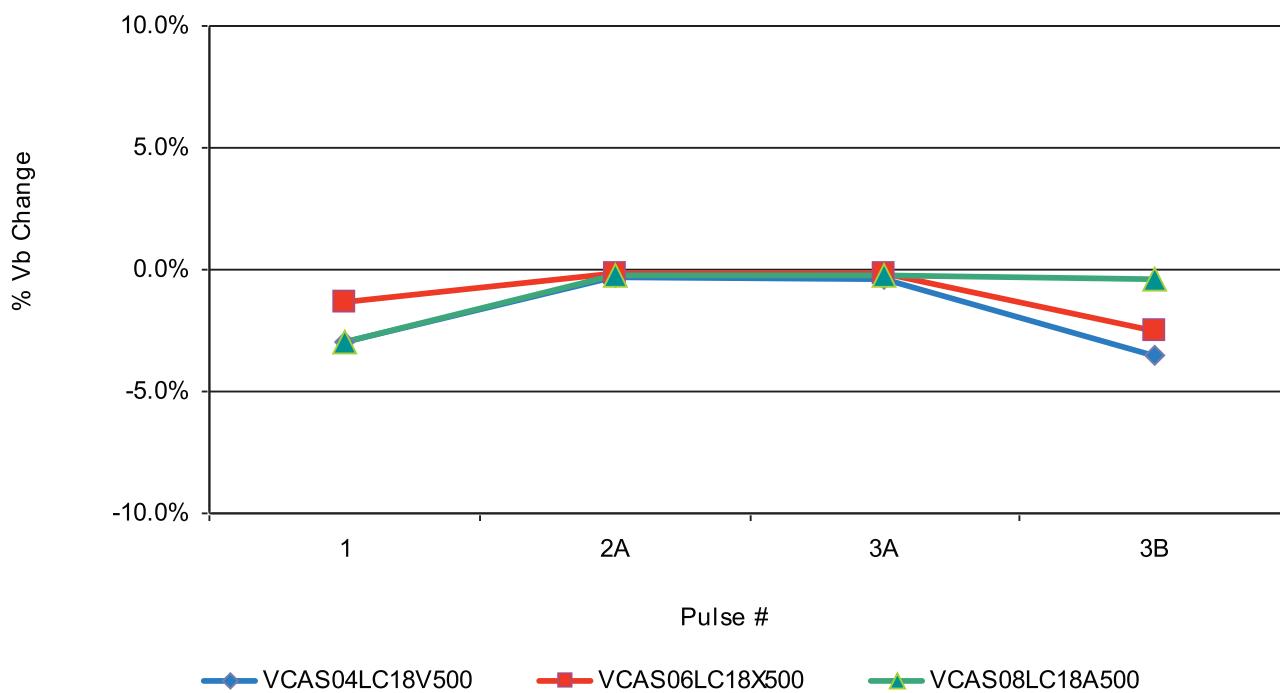
$V_w(\text{DC})$	DC Working Voltage [V]	E_T	Transient Energy Rating [J, $10 \times 1000 \mu\text{S}$]
$V_w(\text{AC})$	AC Working Voltage [V]	I_p	Peak Current Rating [A, $8 \times 20 \mu\text{S}$]
V_B	Typical Breakdown Voltage [V @ 1mA DC, 25°C]	Cap	Typical capacitance [pF] @ frequency specified
V_c	Clamping Voltage [V @ IIVC]		and $0.5V_{\text{RMS}}$, 25°C, M = 1MHz, K = 1kHz
I_{vc}	Test Current for VC [A, $8 \times 20 \mu\text{s}$]	V_{Jump}	Jump Start [V, 5 min]
I_L	Maximum leakage current at the working voltage, 25°C [μA]	P_{DISS}	Power Dissipation [W]

VOLTAGE/CURRENT CHARACTERISTICS



ELECTRICAL TRANSIENT CONDUCTION

ISO 7637 Pulse 1-3

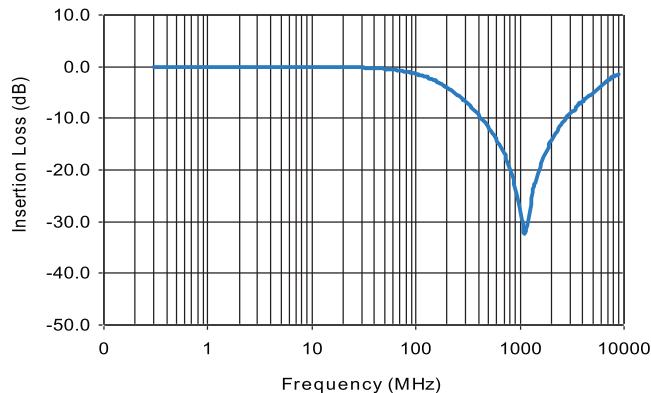


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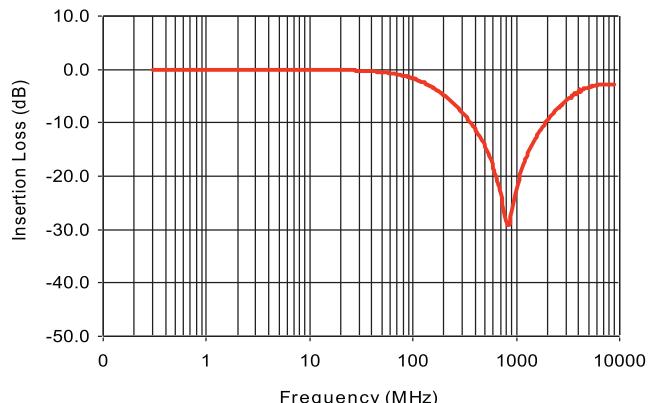
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VOLTAGE/CURRENT CHARACTERISTICS

VCAS04LC18V500



VCAS06LC18X500



VCAS08LC18A500

