

GENERAL INFORMATION

- Typical ESD failure voltage for CMOS and/or Bi Polar is $\geq 200V$.
- 15kV ESD pulse (air discharge) per IEC 1000-4-2, Level 4, generates < 20 millijoules of energy.
- Low capacitance (<200pF) is required for high-speed data transmission.
- Low leakage current (I_L) is necessary for battery operated equipment.

StaticGuard

AVX Part Number	Working Voltage (DC)	Working Voltage (AC)	Clamping Voltage	Test Current For V_c	Maximum Leakage Current	Transient Energy Rating	Peak Current Rating	Typical Cap	Case Size	Elements
VC04LC18V500 _ _	≤ 18.0	≤ 14.0	50	1	10	0.02	15	40	0402	1
VC06LC18X500 _ _	≤ 18.0	≤ 14.0	50	1	10	0.05	30	50	0603	1
VC08LC18A500 _ _	≤ 18.0	≤ 14.0	50	1	10	0.10	30	80	0805	1
VC12LC18A500 _ _	≤ 18.0	≤ 14.0	50	1	10	0.10	30	200	1206	1
VA10LC18A500 _ _	≤ 18.0	≤ 14.0	50	1	10	0.10	30	200	Axial	1

Termination/Lead Finish Code
Packaging Code

V_w (DC) DC Working Voltage (V)
 V_w (AC) AC Working Voltage (V)
 V_c Clamping Voltage (V @ I_{vc})
 I_{vc} Test Current for V_c (A, $8 \times 20\mu S$)
 I_L Maximum Leakage Current at the Working Voltage (μA)
 E_T Transient Energy Rating (J, $10 \times 1000\mu S$)
 I_P Peak Current Rating (A, $8 \times 20\mu S$)
 Cap Typical Capacitance (pF) @ frequency specified and 0.5 V

Not RoHS Compliant



For RoHS compliant products, please select correct termination style.

PART NUMBER IDENTIFICATION

Chips

V C 08 LC 18 A 500 R P

TERMINATION FINISH:
 P = Ni/Sn Alloy (Plated)
PACKAGING (Pcs/Reel)
CLAMPING VOLTAGE
ENERGY RATING
WORKING VOLTAGE (0-18VDC)
LOW CAPACITANCE DESIGN
CASE SIZE DESIGNATOR
CASE STYLE
PRODUCT DESIGNATOR

Axials

V A 10 LC 18 A 500 R L

LEAD FINISH:
 L = Copper Clad Steel, Solder Coated
PACKAGING (Pcs/Reel)
CLAMPING VOLTAGE
ENERGY RATING
WORKING VOLTAGE (0-18VDC)
LOW CAPACITANCE DESIGN
CASE SIZE DESIGNATOR
CASE STYLE
PRODUCT DESIGNATOR

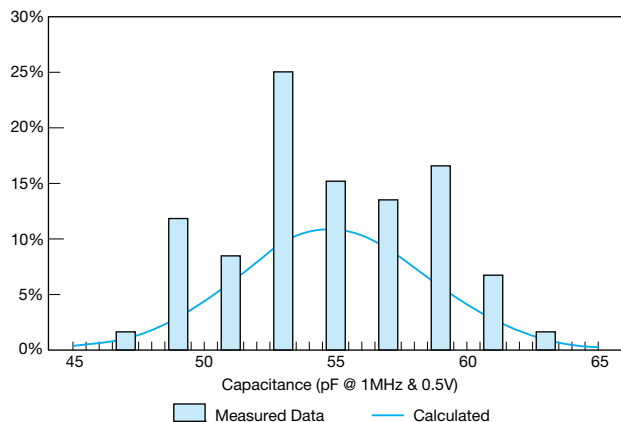
StaticGuard

AVX Multilayer Ceramic Transient Voltage Suppressors
ESD Protection for CMOS, Bi Polar and SiGe Based Systems

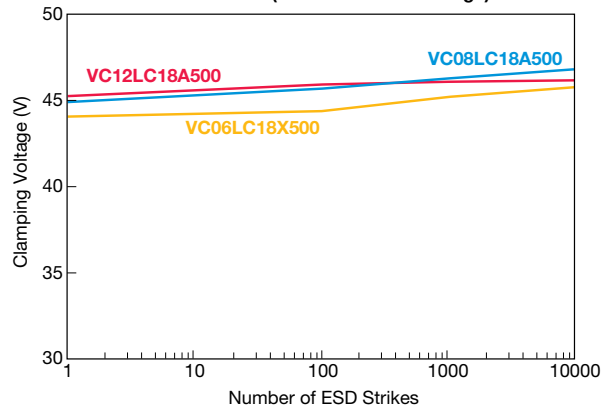


TYPICAL PERFORMANCE DATA

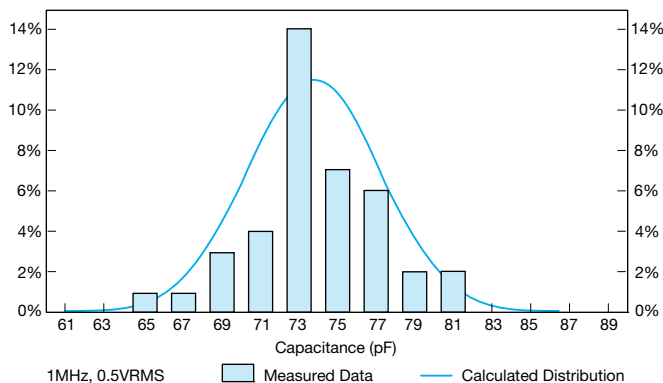
VC06LC18X500 Capacitance Histogram



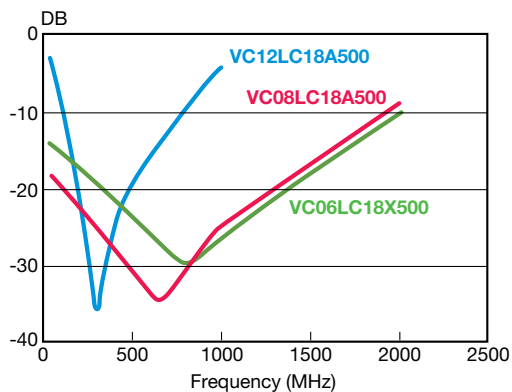
StaticGuard ESD RESPONSE
IEC 1000-4-2 (8 Kv Contact Discharge)



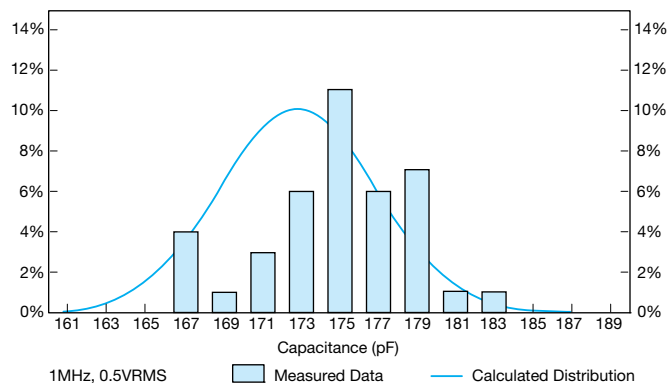
VC08LC18A500 Capacitance Histogram



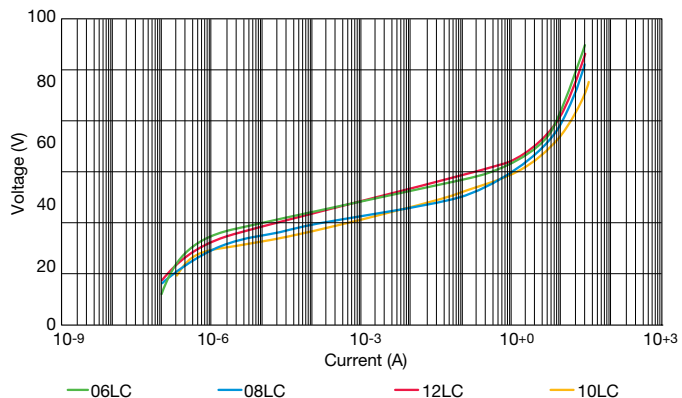
StaticGuard S21



VC12LC18A500 Capacitance Histogram



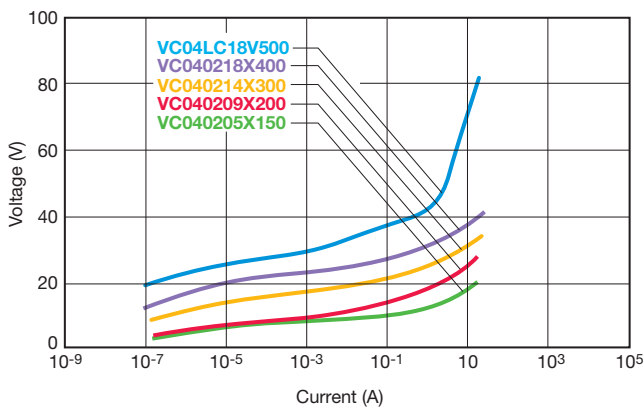
VI Curves - StaticGuard Products



TYPICAL PERFORMANCE CURVES (0402 CHIP SIZE)

VOLTAGE/CURRENT CHARACTERISTICS

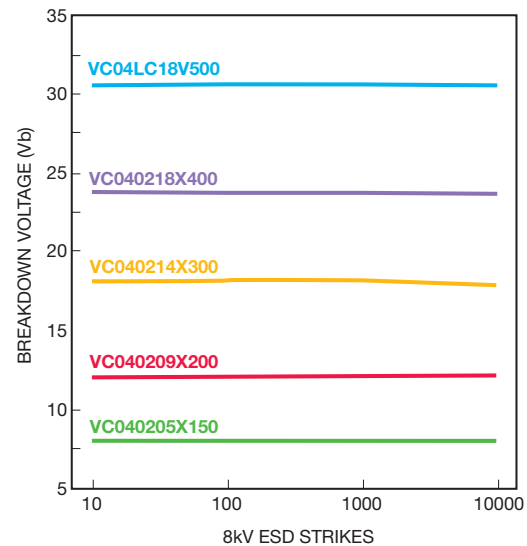
Multilayer construction and improved grain structure result in excellent transient clamping characteristics up to 20 amps peak current, while maintaining very low leakage currents under DC operating conditions. The VI curves below show the voltage/current characteristics for the 5.6V, 9V, 14V, 18V and low capacitance StaticGuard parts with currents ranging from parts of a micro amp to tens of amps.



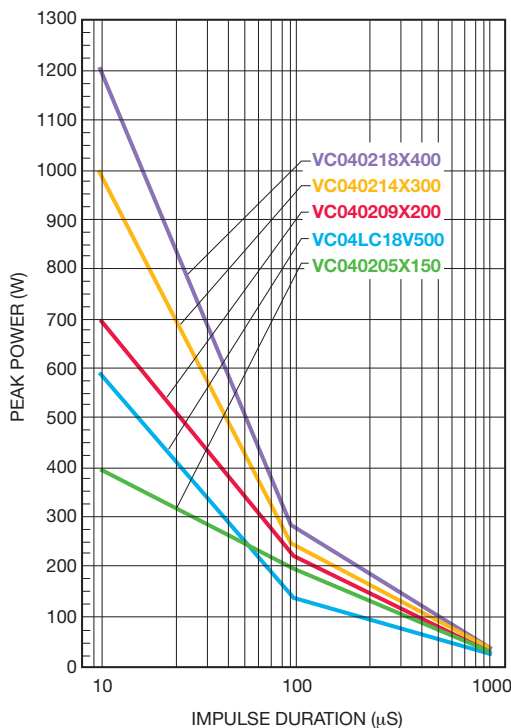
PULSE DEGRADATION

Traditionally varistors have suffered degradation of electrical performance with repeated high current pulses resulting in decreased breakdown voltage and increased leakage current. It has been suggested that irregular intergranular boundaries and bulk material result in restricted current paths and other non-Schottky barrier paralleled conduction paths in the ceramic. Repeated pulsing of TransGuard® transient voltage suppressors with 150Amp peak 8 x 20μS waveforms shows negligible degradation in breakdown voltage and minimal increases in leakage current. This does not mean that TransGuard® suppressors do not suffer degradation, but it occurs at much higher current.

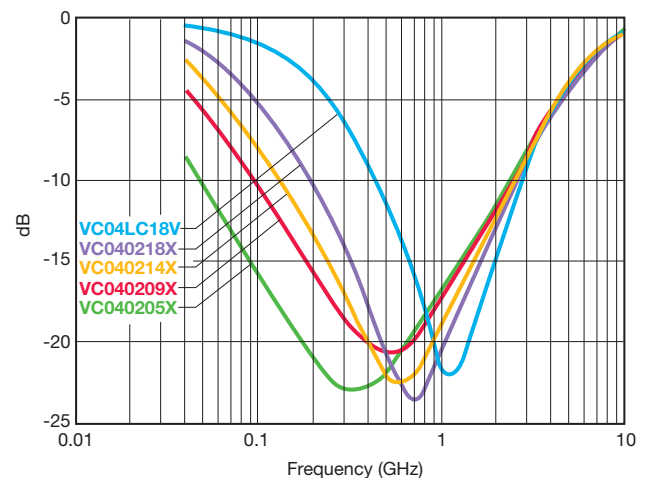
ESD TEST OF 0402 PARTS



PEAK POWER VS PULSE DURATION



INSERTION LOSS CHARACTERISTICS



Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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