



PS05V1A

1-Line SMD Transient Voltage Suppressor Array - 5.0V



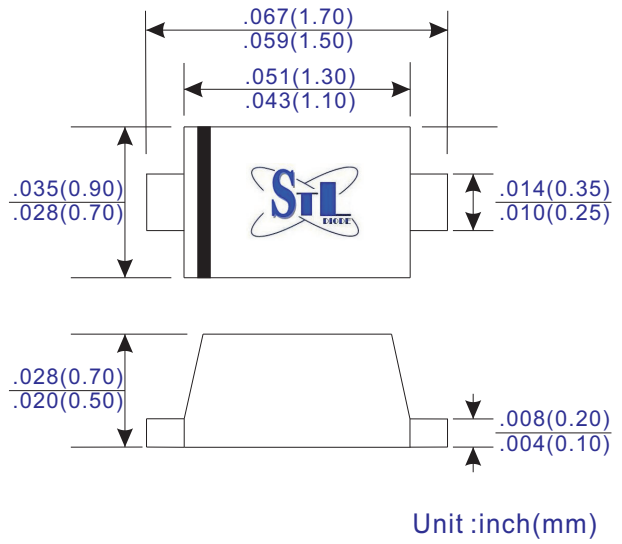
FEATURES

- Low clamping voltage
- 5.0V working voltage
- Low leakage current
- Solid state silicon - avalanche technology
- Transient protection for data lines to IEC 61000-4-2 (ESD) 15KV(air), 8KV(contact) IEC 61000-4-4 (EFT) 40A (tp=5/50nS)
- Protect one I/O or power line
- Lead-free parts for green partner

MECHANICAL DATA

- Case: Molded plastic SOD-523
- Epoxy: UL94-V0 rated flame retardant
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.002 grams (approximate)

SOD-523



MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS
 Ratings at 25°C ambient temperature unless otherwise specified

	Symbols	PS05V1A	Units
Peak Pulse Power (tp=8/20µS)	P _{pk}	250	Watts
Maximum Peak Pulse Current	I _{pp}	16	Amps
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{pp}	±20 ±15	KV
Maximum Reverse Stand-off Voltage	V _{RWM}	5	Volts
Minimum Reverse Breakdown Voltage (I _t =1mA)	V _{BR}	6	Volts
Forward Voltage (I _F =10mA)	V _F	0.8 Typical	Volts
Clamping Voltage (I _{pp} =5A, tp=8/20µS) Clamping Voltage (I _{pp} =16A, tp=8/20uS)	V _c	9.5 12.5	Volts
Junction Capacitance (V _R =0V, f=1MHz)	C _J	150	pF
Operating Temperature Range	T _J	-55 ~ +125	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C



Fig.1 - Non-Repetitive Peak Pulse Power

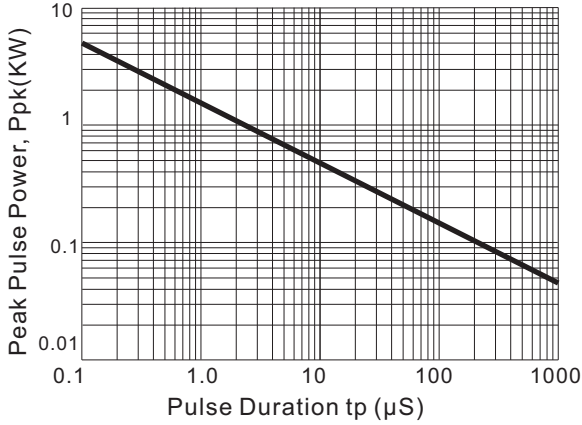


Fig. 2 - Power Derating Curve

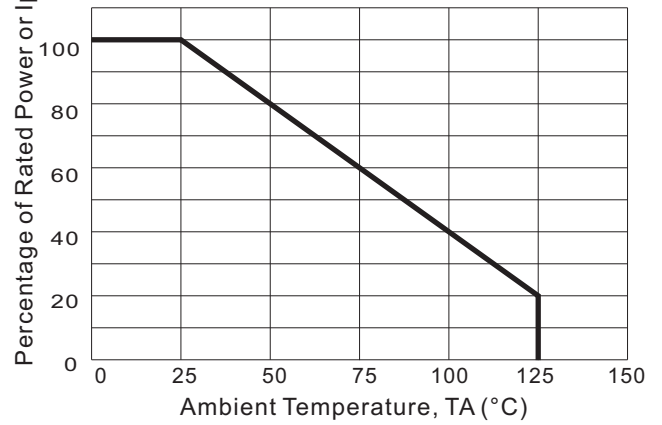


Fig. 3 - Clamping Voltage Characteristics

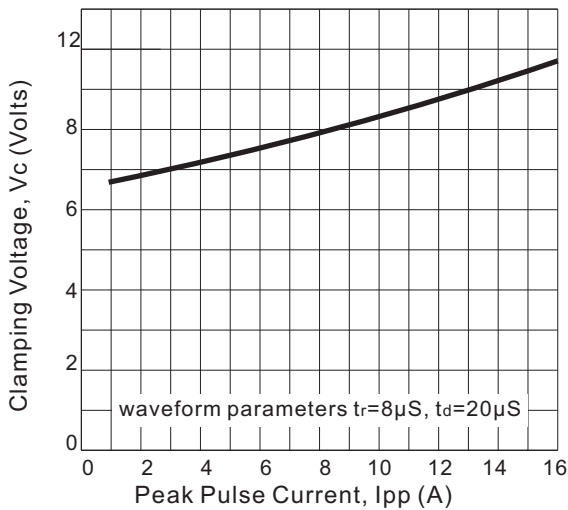


Fig. 4 - Typical Forward Characteristics

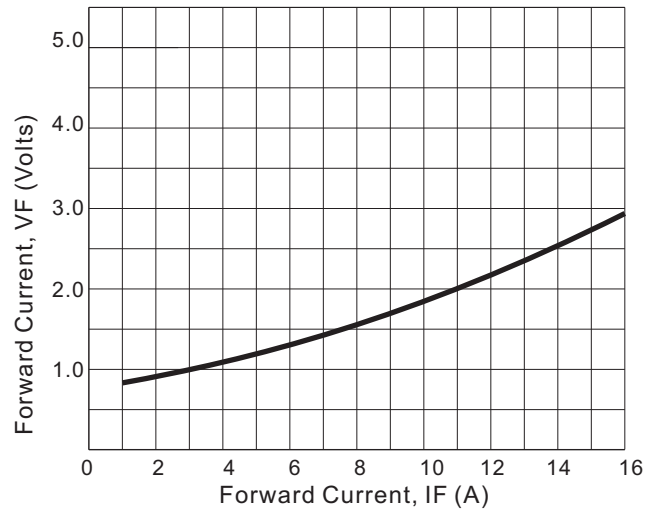


Fig. 5 - Typical Junction Capacitance

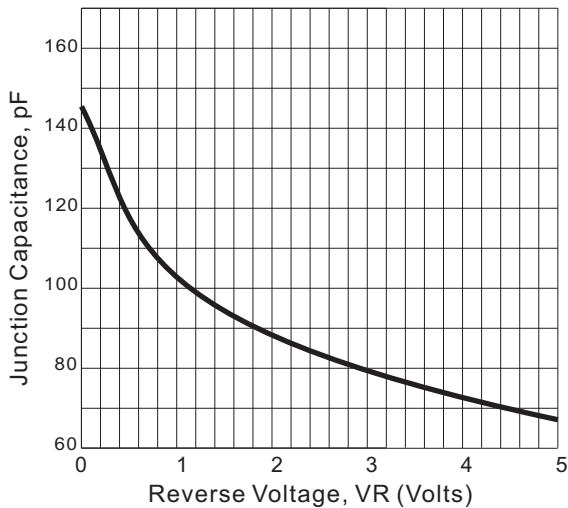


Fig. 6 - ESD Clamping

