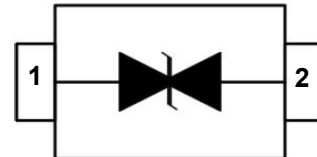


SOD-323 Plastic-Encapsulate ESD Protection Diodes

DESCRIPTION

- ◆ Peak power dissipation: 500W (8/20μs)
- ◆ IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ Protects one directional I/O line
- ◆ Low clamping voltage
- ◆ Low leakage current
- ◆ Low capacitance
- ◆ Working voltages : 5V
- ◆ Meets MSL 1 Requirements

Cir



Applications

- ◆ High Speed Line :USB1.0/2.0, VGA, DVI, SDI
- ◆ Serial and Parallel Ports
- ◆ Notebooks, Desktops, Servers
- ◆ Projection TV
- ◆ Cellular handsets and accessories
- ◆ Portable instrumentation
- ◆ Peripherals

◆ Marking: 5/9

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	VESD	± 30	KV
ESD per IEC 61000-4-2 (Contact)		± 30	
Peak Pulse Power(8/20us)	PPp	500	W
Operating Temperature	T _{OPT}	-55 to +150	°C
Storage Temperature	T _{STG}	-55 to +150	°C

The above data are for reference only.

**Electrical Characteristics** ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_{\text{T}} = 1\text{mA}$	5.8		7.8	V
I_{R}	Reverse Leakage Current	$V_{\text{RWM}} = 5\text{V}$			1.0	μA
V_{C}	Clamping Voltage	$I_{\text{PP}} = 1\text{A}$, $t_{\text{p}} = 8/20\mu\text{s}$			9.8	V
V_{C}	Clamping Voltage	$I_{\text{PP}} = 25\text{A}$, $t_{\text{p}} = 8/20\mu\text{s}$		15	20	V
C_{J}	Junction Capacitance	$V_{\text{R}} = 0\text{V}$, $f = 1\text{MHz}$		33	40	pF

The above data are for reference only.

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 8/20 μ s Waveform per IEC61000-4-5

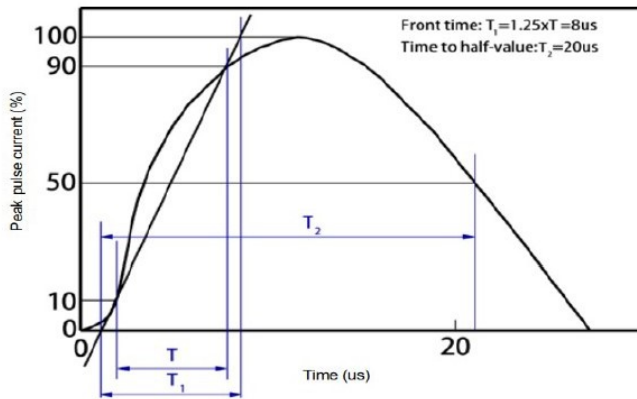


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

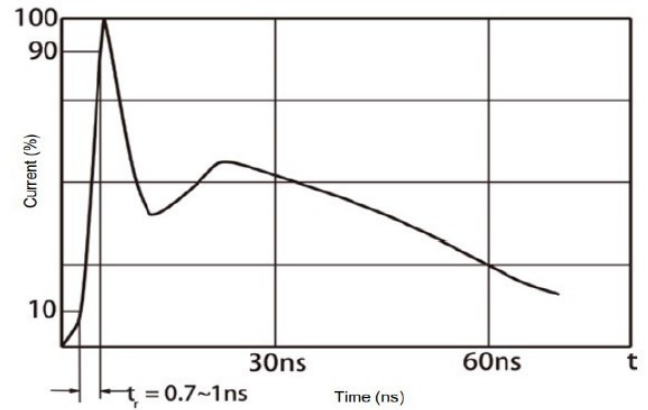


Fig 3 Voltage vs Capacitance

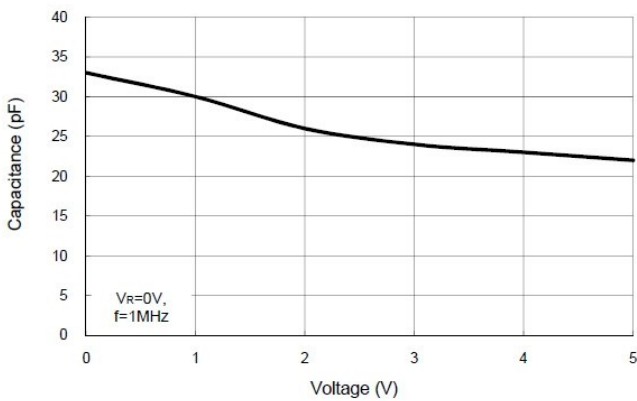
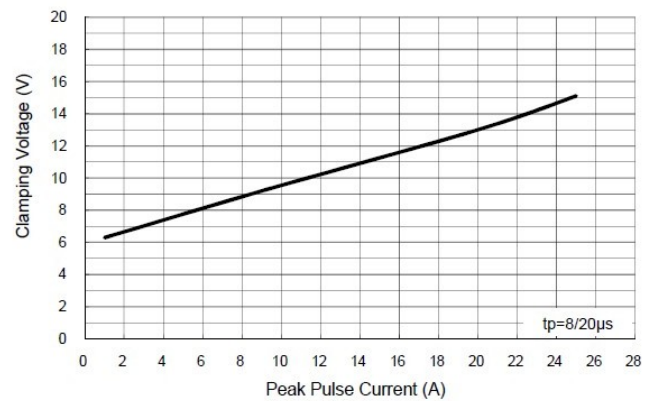


Fig 4 Peak Pulse Current vs Clamping Voltage



The curve above is for reference only.