

SOD-523 Plastic-Encapsulate ESD Protection Diodes

DESCRIPTION

- ◆ Peak power dissipation: 35W (8/20μs)
- ◆ IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ Protects one directional I/O line
- ◆ Low clamping voltage
- ◆ Low leakage current
- ◆ Low capacitance
- ◆ Working voltages : 5.0V
- ◆ Meets MSL 1 Requirements

Circuit Diagram

Applications

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	VESD	± 15	KV
ESD per IEC 61000-4-2 (Contact)		± 8	
Peak Pulse Power(8/20us)	PPp	35	W
Operating Temperature	T _{OPT}	-55 to +150	°C
Storage Temperature	T _{STG}	-55 to +150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	T _L	260(10 sec.)	°C

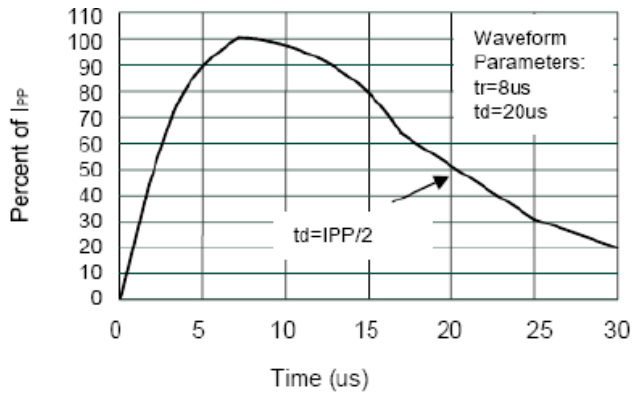
The above data are for reference only.

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

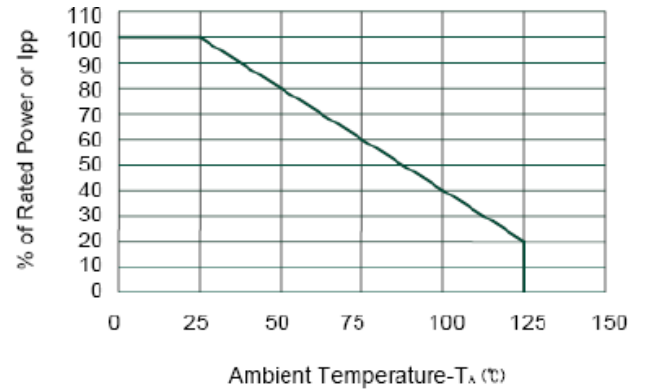
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	5.6		9.4	V
I_R	Reverse Leakage Current	$V_{RWM} = 5\text{V}$			2.0	μA
V_C	Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$			10.5	V
		$I_{PP} = 2\text{A}, t_p = 8/20\mu\text{s}$			14.0	V
C_J	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		3.0	3.5	pF

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ELECTRICAL CHARACTERISTICS CURVE



Pulse Waveform



Power Derating Curve

The curve above is for reference only.