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) ESD per IEC 61000−4−2 (Contact)	V_{ESD}	± 15 ± 8	KV
Peak Pulse Power(8/20us)	P_{PP}	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

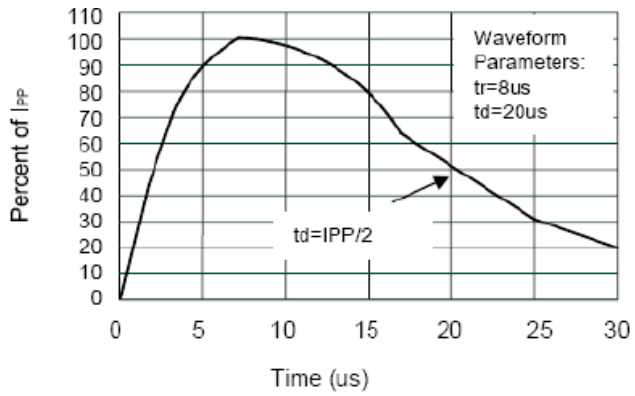
The above data are for reference only.

Electrical Characteristics (TA=25°C unless otherwise specified)

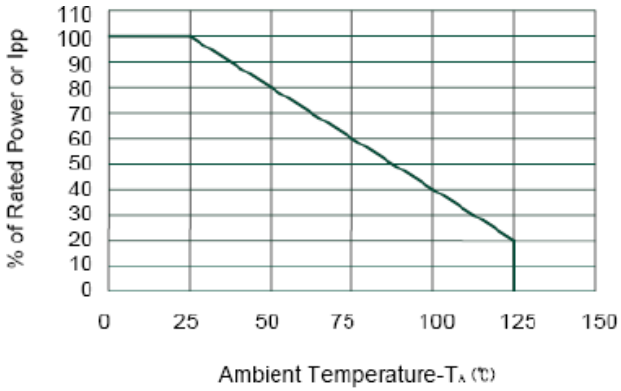
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	5.6		9.4	V
I_R	Reverse Leakage Current	V_{RWM} = 5V			2.0	μA
V_C	Clamping Voltage	I_{PP} = 1A, t_p = 8/20μs			10.5	V
		I_{PP} = 2A, t_p = 8/20μs			14.0	V
C_J	Junction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

The above data are for reference only.

ELECTRICAL CHARACTERISTICS CURVE



Pulse Waveform



Power Derating Curve

The curve above is for reference only.