

ESD PROTECTION DIODE

VOLTAGE RANGE 5 Volts POWER RATING 350 Watts

FEATURES

- * IEC61000-4-2(ESD)±15kV(air),±8kV(CONTACT)
- * IEC61000-4-2(EFT)40A(5/50ns)
- * 350Watts Peak Pulse Power per (tp=8/20us)
- * Protects one I/O line(bidirectional)
- * Low clamping voltage
- * Working voltages:3V,5V,12V,15V,24V
- * Low leakage current
- * Material:Halogen free

MECHANICAL DATA

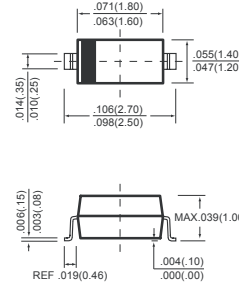
- * SOD-323 package
- * Flammability Rating:UL 94V-0
- * Packaging:Tape and Reel
- * High temperature soldering guaranteed:260?/10s
- * Reel size:7 inch

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.



SOD-323



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA = 25°C unless otherwise noted)

Rating	Symbol	Value	Units
Peak Pulse Power (tp = 8/20µs)	P _{pk}	350	Watts
Peak Pulse Current (tp = 8/20µs)	I _{pp}	24	A
ESD Voltage (HBM Waveform per IEC 61000-4-2)	V _{pp}	30	kV
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Operating Temperature	T _J	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to +150	°C

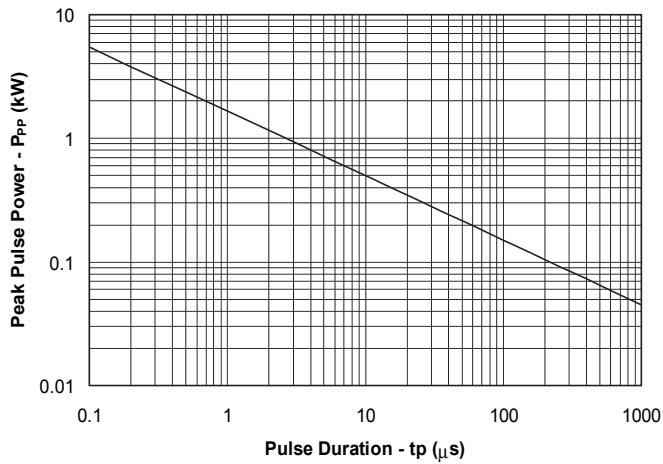
ELECTRICAL CHARACTERISTICS (@ TA = 25 C unless otherwise noted)

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V _{RWM}				5	V
Reverse Breakdown Voltage	V _{BR}	I _t = 1mA	6			V
Reverse Leakage Current	I _R	V _{RWM} = 5V, T=25 °C			10	µA
Clamping Voltage	V _C	I _{pp} = 5A, tp = 8/20µs			9.8	V
Clamping Voltage	V _C	I _{pp} = 24A, tp = 8/20µs			14.5	V
Junction Capacitance	C _J	V _R = 0V, f = 1MHz			200	pF

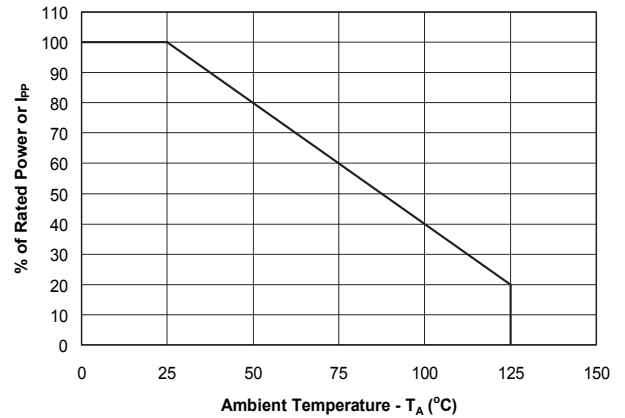
Notes 1. Valid provided that device terminals are kept at ambient temperature.
2. "Fully RoHS Compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (SD05C)

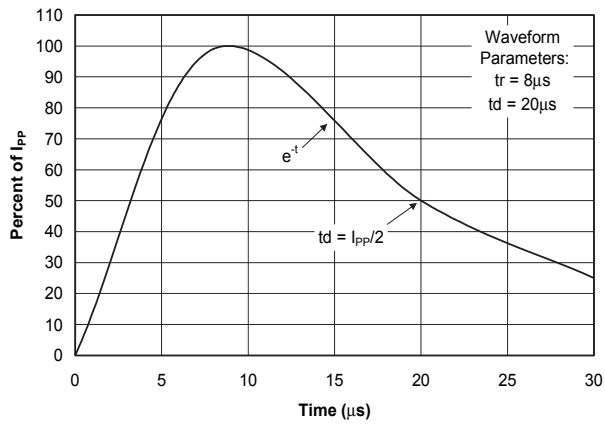
Non-Repetitive Peak Pulse Power vs. Pulse Time



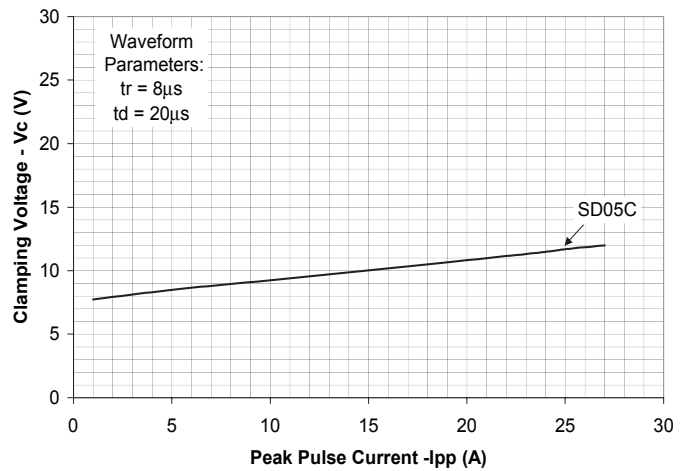
Power Derating Curve



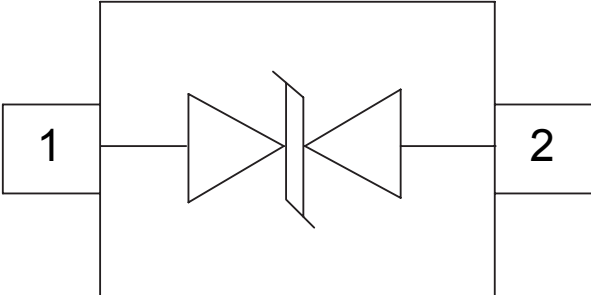
Pulse Waveform



Clamping Voltage vs. Peak Pulse Current

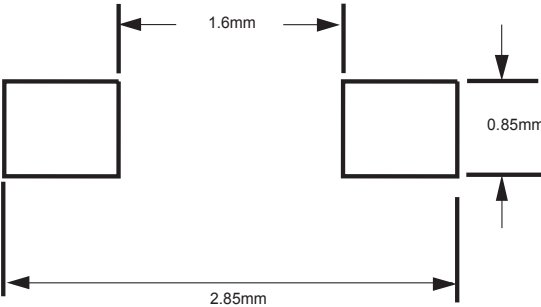


Schematic & PIN Configuration



SOD-323 (Top View)

Recommended Pad Layout



Dimensions in inches and (millimeters)

PACKAGING OF DIODE

REEL PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-323	-T	3,000	---	---	178	438*438*220	180,000	9.00

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