Elektronische Bauelemente

SD03

VOLTAGE: 3.3V

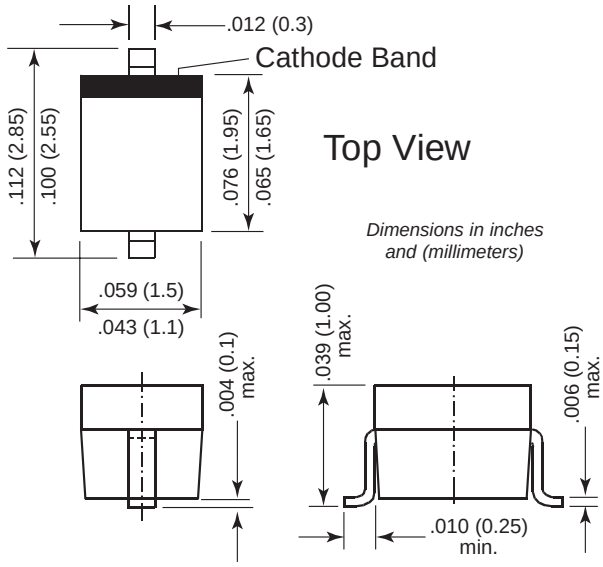
300W Transient Voltage Suppressors Diode

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

SOD-323 (SC-76)

●FEATURES

. 300 Watts peak pulse power (t = 8 / 20 μs)
. Small package for use in portable electronics
. Suitable replacement for MLV's in ESD protection applications
. Protects one I/O or power line
. Low clamping voltage
. Low leakage current
. Solid-state silicon-avalanche technology



●APPLICATIONS

. Cell Phone Handsets and Accessories
. Microprocessor based equipment
. Personal Digital Assistants (PDA's)
. Notebooks, Desktops, and Servers
. Portable Instrumentation
. Pagers Peripherals

●MECHANICAL DATA

. CASE: SOD-323 (SC-76), Molded Plastic
. TERMINALS: UL 94V-0
. POLARITY: See Diagrams Below
. WEIGHT: 0.0045 gram
. MOUNTING POSITION: Any

●MAXIMUM RATINGS

Rating 25℃ ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	VALUE	UNITS
Peak Pulse Power (t_P = 8 / 20 μs)	P_{PK}	300	W
ESD Voltage (HBM Waveform per IEC 61000-4-2)	V_{ESD}	30	kV
Lead Soldering Temperature	T_L	260 (10 sec.)	℃
Operating Temperature Range	T_J	-55 ~ +125	℃
Storage Temperature Range	T_{STG}	-55 ~ +150	℃

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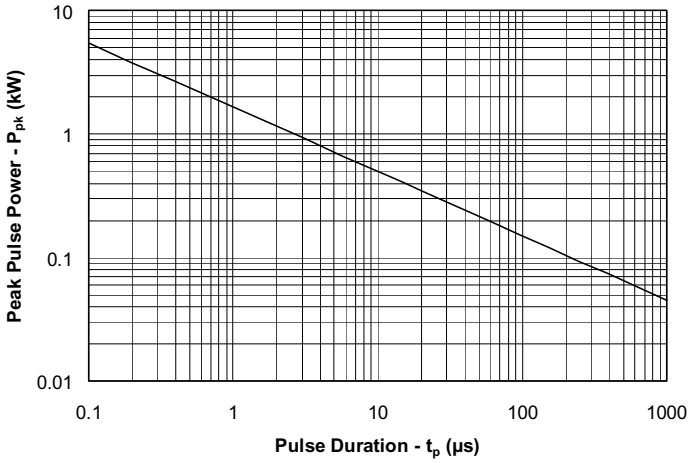
●ELECTRICAL CHARACTERISTICS (T = 25℃)

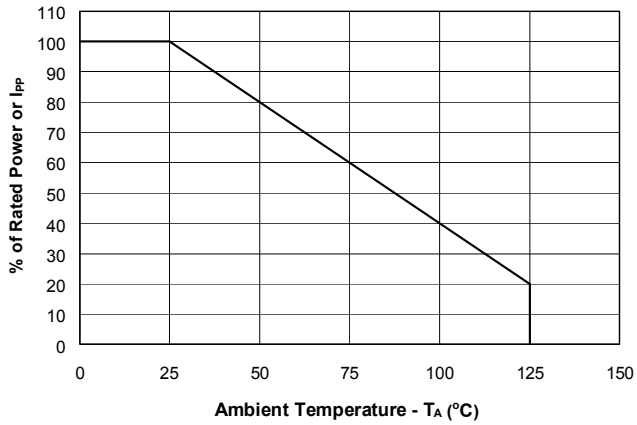
TYPE NUMBER	SYMBOL	Min.	Typ.	Max.	UNIT	TEST CONDITIONS
Reverse Stand-Off Voltage	V_{RWM}	-	-	4	V	
Reverse Breakdown Voltage	V_{BR}	5	-	-	V	I_t = 1mA
Reverse Leakage Current	I_R -		-	100	μA	V_{RWM} = 3.3V
Clamping Voltage	V_C	-	-	7	V	I_{PP} = 1A, t_P = 8 / 20 μs
		-	-	8.5		I_{PP} = 5A, t_P = 8 / 20 μs
Peak Pulse Current	I_{PP}	-	-	12	A	t_P = 8 / 20 μs
Junction Capacitance	C_j	-	-	350	pF	V_R = 0V, f = 1MHz

●ELECTRICAL CHARACTERISTIC CURVES

Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve



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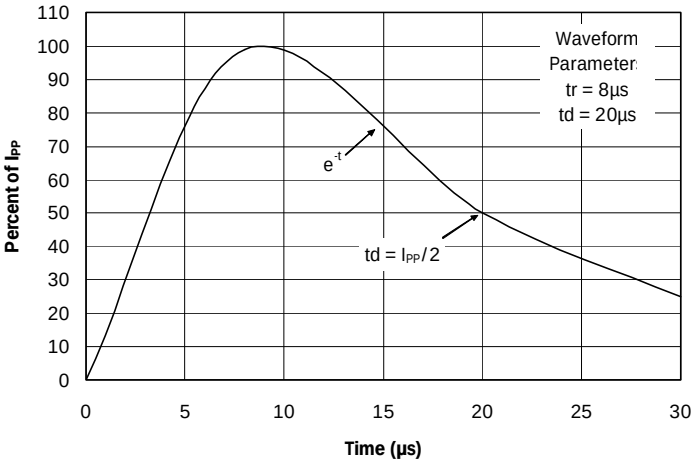
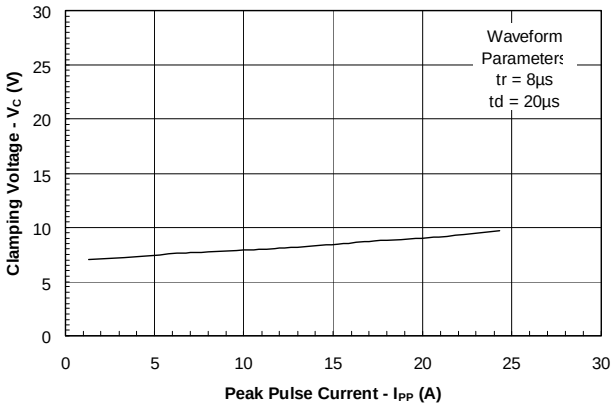
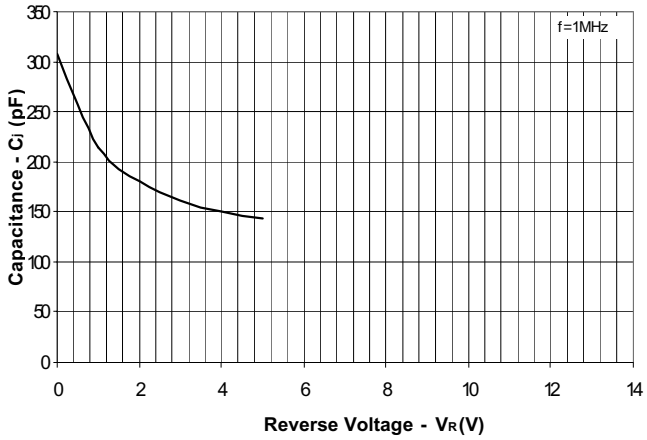
Pulse Waveform



Clamping Voltage vs. Peak Pulse Current



Capacitance vs. Reverse Voltage



Forward Voltage vs. Forward Current