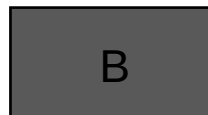


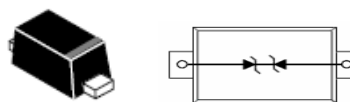
Features

100 W (8/20 μ s) Peak Pulse Power
Low Capacitance ESD Protection
SOD-923 Package
RoHS Compliant
Matte Tin Lead finish (Pb-Free)
Protect One High Speed Data Line
Meet IEC61000-4-2 Level 4:
Contact Discharge > 30kV
Air Discharge > 30kV



Applications

Communication System
Portable Instrumentation
Audio and Video Equipment
Computers and Peripherals
USB 1.1, USB 1.0 Ports



SOD-923

Absolute Maximum Rating

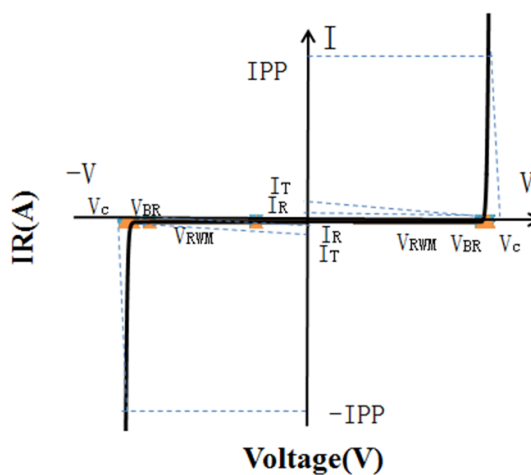
Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	100	W
IPP	Peak Pulse Current	8	A
VESD (Contact)	Contact ESD Voltage per IEC61000-4-2	30	kV
VESD (Air)	Air ESD Voltage per IEC61000-4-2	30	kV
TJ	Junction Temperature	-55 to +150	℃
TSTG	Storage Temperature	-55 to +150	℃

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

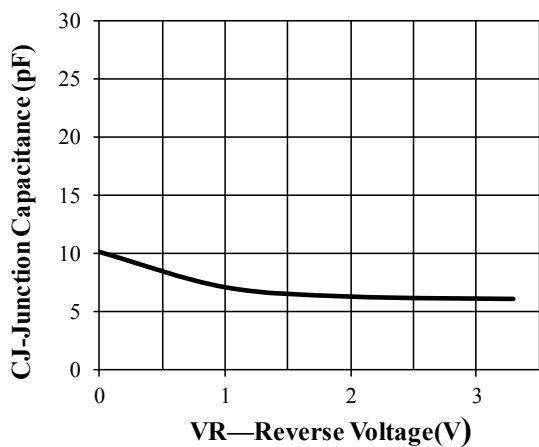
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				3.3	V
VBR	Reverse Breakdown Voltage	IT = 1mA	3.7	4.3	6.2	V
IR	Reverse Leakage Current	VRWM = 3.3V			0.5	μA
VC	Clamping Voltage	IPP = 1A (8/20 μs)		4.5	6.5	V
VC	Clamping Voltage	IPP = 8A (8/20 μs)		7	12.5	V
CJ	Capacitance	VR = 0V, f = 1MHz		10	25	pF

Portion Electronics Parameter

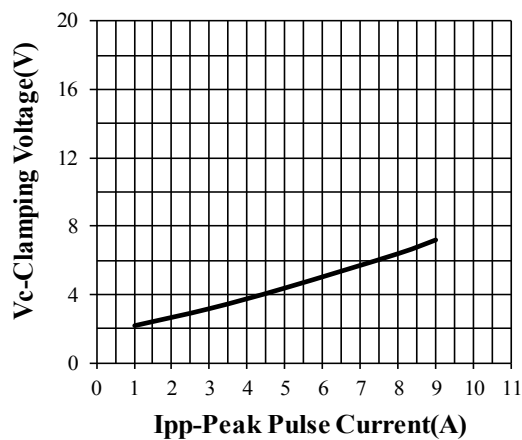
Symbol	Parameter
IT	Test Current
IPP	Maximum Reverse Peak Pulse Current
Vc	Clamping Voltage @Ic



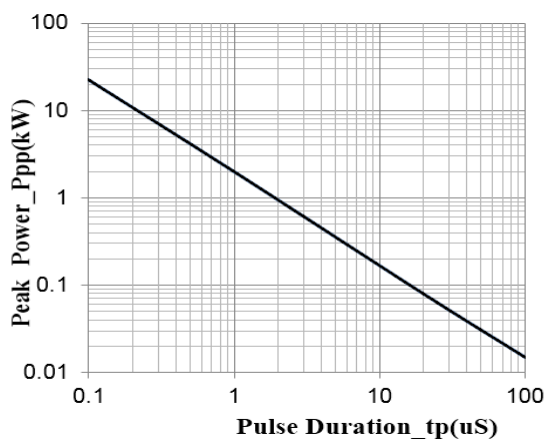
Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)



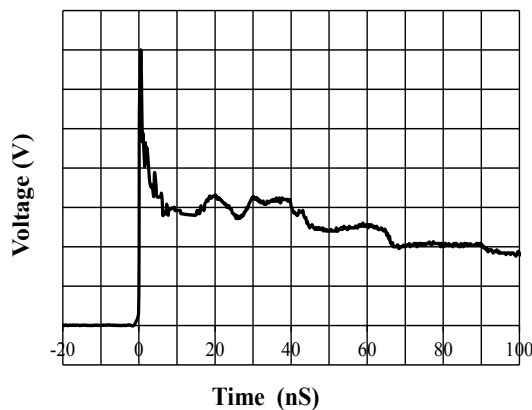
Junction Capacitance vs. Reverse Voltage



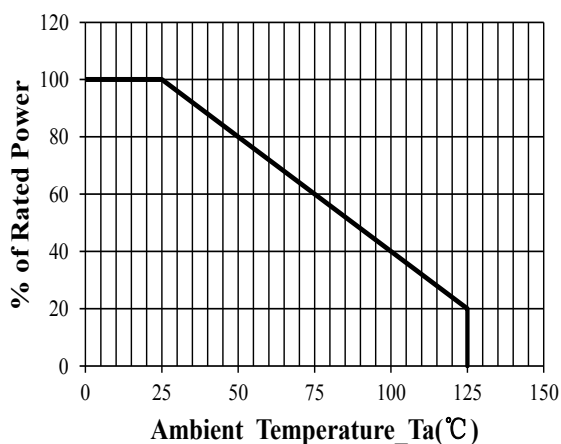
Clamping Voltage vs. Peak Pulse Current



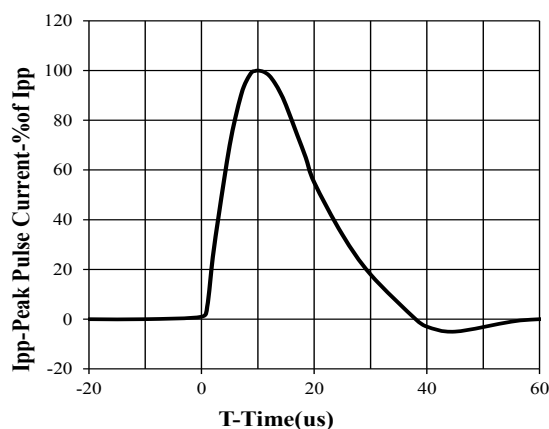
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



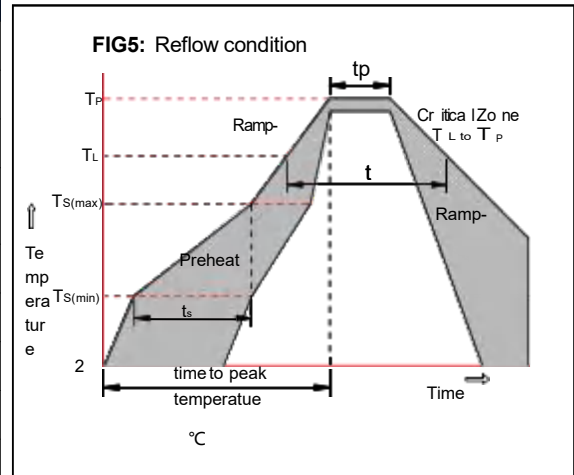
Power Derating Curve



8 X 20us Pulse Waveform

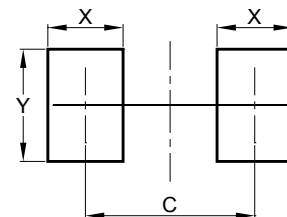
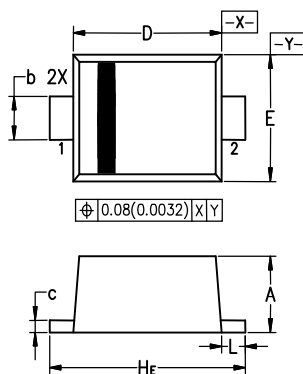
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150 °C
	-Temperature Max($T_{s(max)}$)	+200 °C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3 °C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3 °C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217 °C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5) °C
Time within 5 °C of actual Peak Temp (t_P)		30 secs. Max
Ramp-down Rate		6 °C/sec. Max
Time 25 °C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260 °C



Package Dimensions & Suggested Pad Layout

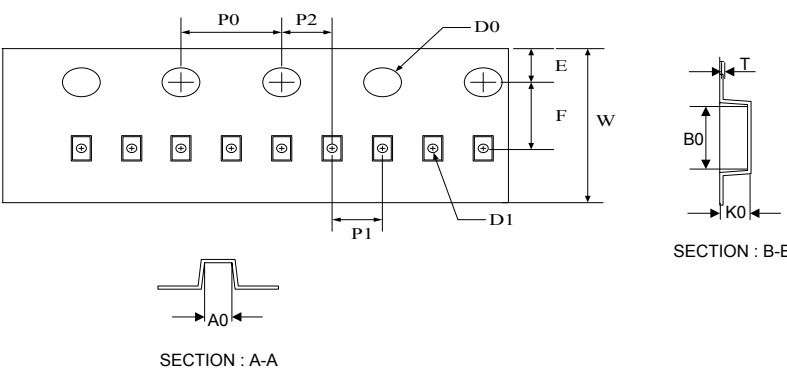
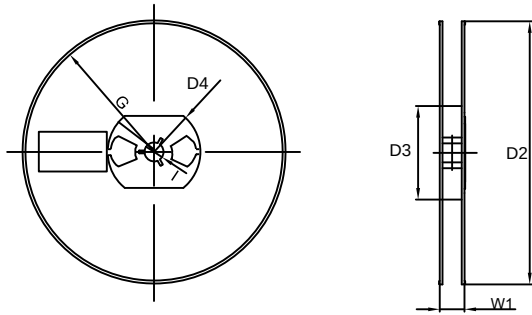
SOD-923



Dim	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	0.36	0.40	0.43	0.014	0.016	0.017
b	0.15	0.20	0.25	0.006	0.008	0.010
c	0.07	0.12	0.17	0.003	0.005	0.007
D	0.75	0.80	0.85	0.030	0.031	0.033
E	0.55	0.60	0.65	0.022	0.024	0.026
Hc	0.95	1.00	1.05	0.037	0.039	0.041
L	0.05	0.10	0.15	0.002	0.004	0.006

Dimensions	Value (in mm)
C	0.950
X	0.450
Y	0.600

Tape & reel specification

Tape		Symbol	Dimension (mm)
		P0	4.00±0.20
		P1	2.00±0.20
		P2	2.00±0.20
		D0	1.55±0.20
		D1	0.20±0.20
		E	1.55±0.25
		F	3.60±0.20
		W	8.00±0.20
		A0	1.00±0.20
		B0	1.35±0.20
		K0	0.75±0.20
		T	0.20±0.20
		D2	177.0±5.0
		D3	55Min.
		D4	R24.6±2.0
7" Reel		G	R82.0±2.0
		I	13.0±2.0
		W1	10.20±3.0
		Quantity: 8000PCS	