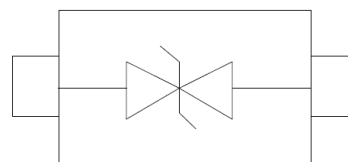


Features

- ◆ 150 Watts peak pulse power ($t_p = 8/20\mu s$)
- ◆ Transient protection for high speed data lines to IEC 61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact) IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆ Protects One Power or I/O Port
- ◆ Low leakage current
- ◆ Low operating and clamping voltages
- ◆ Solid-state silicon avalanche technology



SOD323



Applications

- ◆ Cell Phone Handsets and Accessories
- ◆ Microprocessor based equipment
- ◆ Portable Instrumentation
- ◆ Personal Digital Assistant (PDA)

Maximum Rating @ $T_a = 25^\circ C$ unless otherwise specified

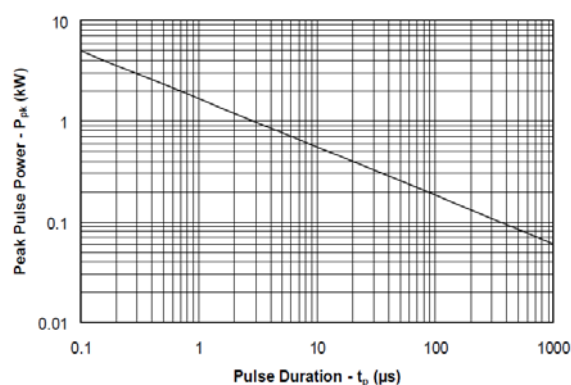
Symbol	Parameter	Ratings	Units
P_{PK}	Peak Pulse Power ($t_p = 8/20\mu s$)	150	Watts
T_L	Lead Soldering Temperature	260(10sec.)	$^\circ C$
T_J	Operating Temperature	-55 to +125	$^\circ C$
T_{STG}	Storage Temperature	-55 to +150	$^\circ C$

Electrical Characteristics@ Ta=25°C unless otherwise

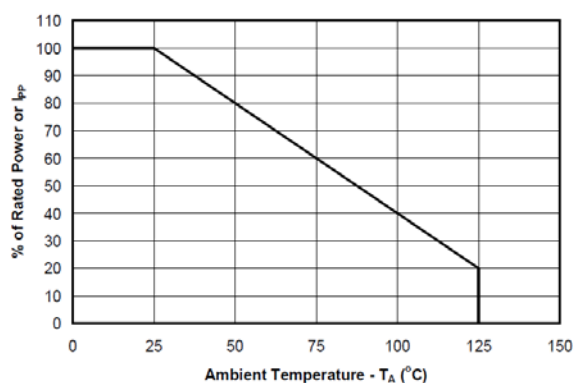
Parameter	VRWM @IR		VBR@ImA	VC@1A	VC@IPP		CJ
	V	μA	V	V	V	A	pF
		MAX	MIN	MAX	MAX		TYP
PESD5V0S1UA	5	1	5.8	11.8	15	3	3

Typical Characteristics@ Ta=25°C unless otherwise specified

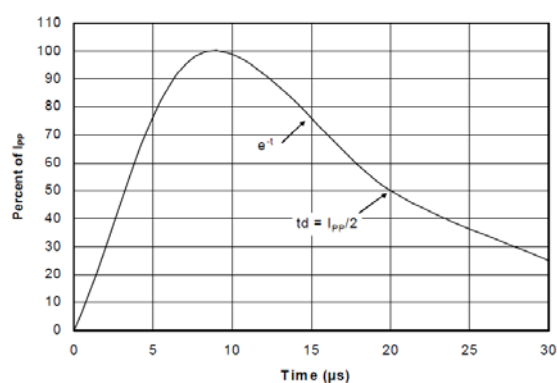
Non-Repetitive Peak Pulse Power vs. Pulse Time



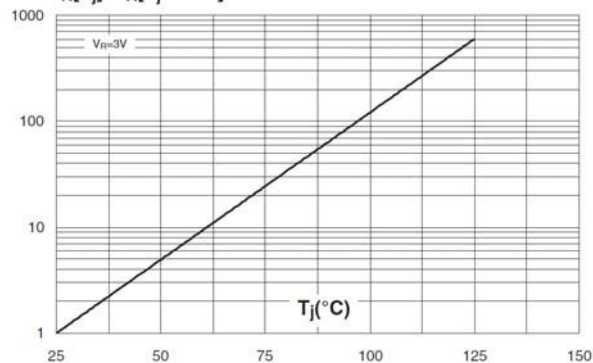
Power Derating Curve



Pulse Waveform

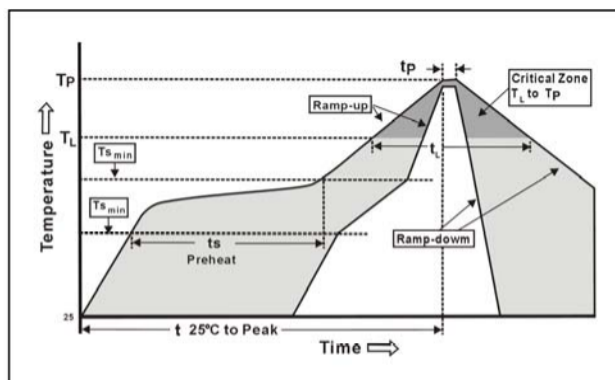


$I_R[T_J] / I_R[T_J=25^\circ\text{C}]$



Soldering Parameters

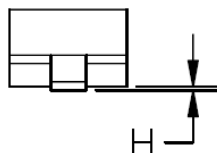
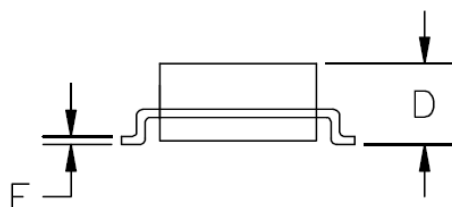
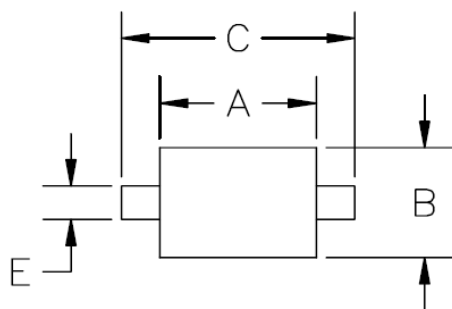
Reflow Condition		Fb – Free assembly
Pre Heat	- Temperature Min ($T_{s(Min)}$)	150°C
	- Temperature Max ($T_{s(Max)}$)	200°C
	- Time (Min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus) Temp (T_L) to peak		3°C/second Max
$T_{s(Max)}$ to T_L - Ramp-up Rate		3°C/second Max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_p)		250 ^{+0/-5} °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second Max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		260°C



Package Outline

Plastic surface mounted package

SOD323



DIM ^N	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	.060	.071	1.5	1.8
B	.045	.054	1.2	1.4
C	.090	.107	2.3	2.7
D	—	.043	—	1.1
E	.012	.016	0.3	0.4
F	.004	.010	.10	.25
H	—	.004	—	.10