

## FEATURES

- | 3600Watts peak pulse power ( $t_p = 8/20\mu s$ )
- | Solid-state silicon-avalanche technology
- | Working voltages : 7V
- | Low clamping voltage
- | Low leakage current

## APPLICATIONS

- | Power lines
- | Personal digital assistants (PDA's)
- | Microprocessors based equipment
- | Notebooks, Desktops, and Servers
- | Cell phone Handsets and Accessories
- | Portable Electronics
- | Peripherals



SOD-123FL



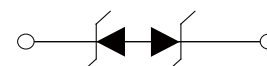
Marking

## IEC COMPATIBILITY

- | IEC61000-4-2 (ESD)  $\pm 30kV$  (air),  $\pm 30kV$  (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

## APPROVALS

<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC61249-2-21:2003



Schematic Symbol

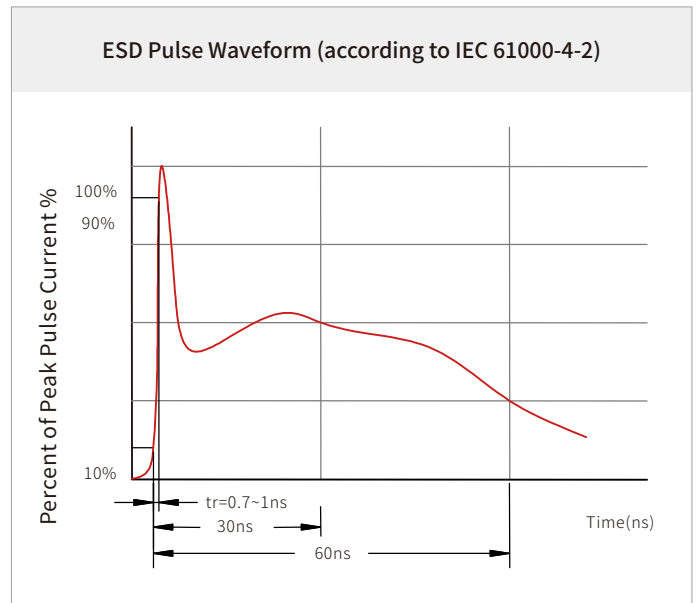
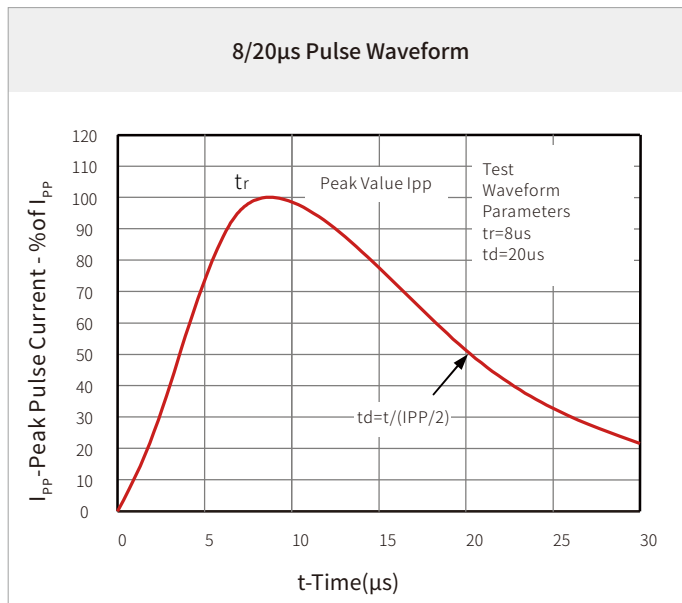
## THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
$P_{PP}$	Peak Pulse Power ( $t_p=8/20\mu s$ waveform)	3600	Watts
$T_J$	Operating Temperature Range	-55 to +125	°C
$T_{STG}$	Storage Temperature Range	-55 to +150	°C

## ELECTRICAL CHARACTERISTICS

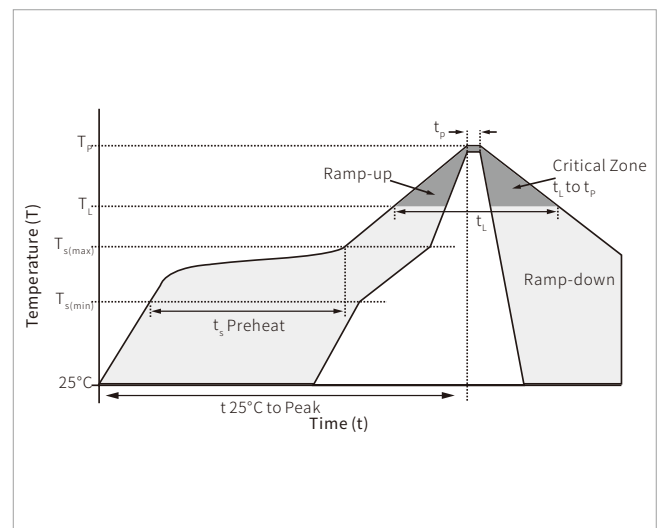
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
$V_{RWM}$	Reverse Stand-off Voltage				7.0	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T=1mA$	7.78			V
$I_R$	Reverse Leakage Current	$V_{RWM}=7V$			1	$\mu A$
$V_C$	Clamping Voltage	$I_{PP}=200A, t_p=8/20\mu s$			18	V
$I_{PP}$	Peak Pulse Current	$t_p=8/20\mu s$			200	A
$C_J$	Off State Junction Capacitance	$V_R=0V, f=1MHz$		1220		pF

## CHARACTERISTIC CURVES

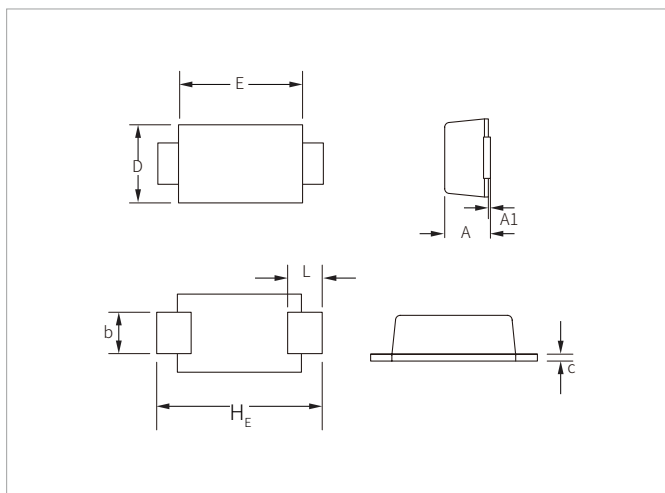


## SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ( $T_{s(min)}$ )	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
	Time (min to max) ( $t_L$ )	60 – 150 seconds
Peak Temperature ( $T_p$ )		260°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

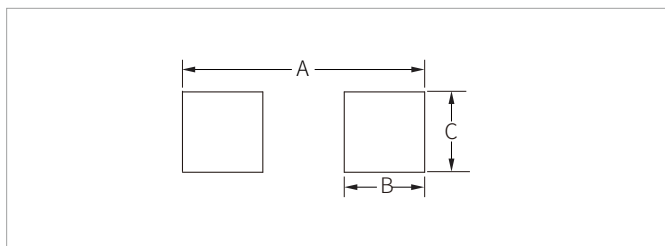


## SOD-123FL PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.95	1.45	0.037	0.057
A1	0.00	0.10	0.000	0.004
b	0.70	1.20	0.028	0.047
c	0.05	0.30	0.002	0.012
D	1.50	2.00	0.059	0.079
E	2.50	3.10	0.098	0.122
L	0.35	0.90	0.014	0.035
H <sub>E</sub>	3.40	3.90	0.134	0.154

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
A	4.20	0.165
B	1.50	0.059
C	1.20	0.047

## ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE1D360B7.0A	SOD-123FL	3000PCS	7"

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