MSKSEMI















ESD

TVS

TSS

MOV

GDT

PLED

Broduct data sheet

Semiconductor

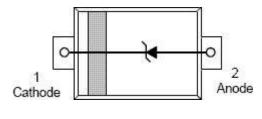
Compiance

Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Features

- Small Body Outline Dimensions
- Low Body Height
- Stand-off Voltage: 2.5V-12V
- Peak Power up to 200 Watts @ 8 x 20 sPulse
- Low Leakage
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model
- IEC61000-4-2 Level 4 ESD Protection
- IEC61000-4-4 Level 4 EFT Protection
- We declare that the material of product compliance with RoHS requirements.



SOD-523

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.VF = 0.9V at IF = 10mA

Device	V _{RWM} (V)	I _R (uA) @ V _{RWM}	V _{BR} (V)@ I _T (Note 1)	Ι _Τ	V _C (V) @ I _{PP} =5 A*	V _C (V) @ Max I _{PP} *	I _{PP} (A)*	P _{PK} (W)*	C (pF)
	Max	Max	Min	mA	Тур	Max	Max	Max	Тур
MSPESD5Z2.5	2.5	6.0	4.0	1.0	6.5	10.9	11.0	120	145
MSPESD5Z3.3	3.3	1.0	5.0	1.0	8.4	14.1	11.2	158	105
MSPESD5Z5.0	5.0	1.0	6.2	1.0	11.6	18.6	9.4	174	80
MSPESD5Z6.0	6.0	1.0	6.8	1.0	12.4	20.5	8.8	181	70
MSPESD5Z7.0	7.0	1.0	7.5	1.0	13.5	22.7	8.8	200	65
MSPESD5Z12	12	1.0	13.5	1.0	25.5	30	5	150	55

^{*}Surge current waveform per Figure 1.

Absolute Ratings (T_{amb}=25°C)

Symbol	Parameter	Value	Units
P _{PP}	Peak Pulse Power (t _p = 8/20µs)	200	W
TL	Maximum lead temperature for soldering during 10s	260	°C
T _{stg}	Storage Temperature Range	-55 to +150	°C
T _{op}	Operating Temperature Range	-40 to +125	°C
Tj	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD) air discharge contact discharge	±15 ±8	KV
	IEC61000-4-4 (EFT)	40	Α
	ESD Voltage Per Human Body Model	16	KV







Symbol	Parameter
I _{PP}	Maximum Reverse Peak Pulse Current
Vc	Clamping Voltage @ IPP
V _{RWM}	Working Peak Reverse Voltage
I _R	Maximum Reverse Leakage Current @ V _{RWM}
I _T	Test Current
V _{BR}	Breakdown Voltage @ I _T

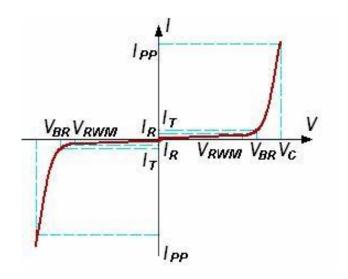


FIG1: Pulse Waveform

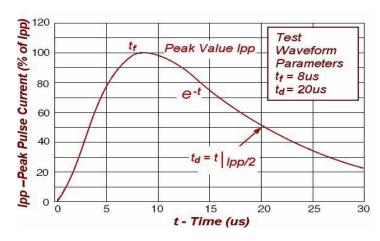
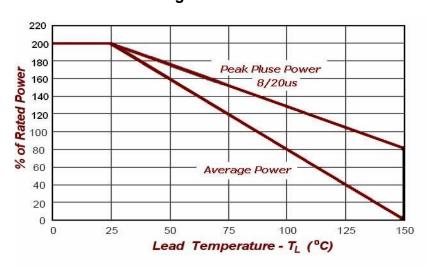
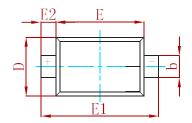


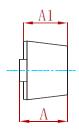
FIG2:Power Derating

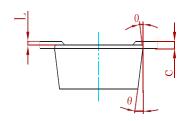




PACKAGE MECHANICAL DATA

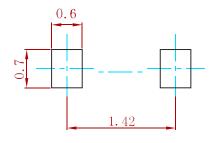






Cumbal	Dimensions	In Millimeters	Dimensions In Inches		
Symbol	Min	Max	Min	Max	
Α	0.510	0.770	0.020	0.031	
A1	0.500	0.700	0.020	0.028	
b	0.250	0.350	0.010	0.014	
С	0.080	0.150	0.003	0.006	
D	0.750	0.850	0.030	0.033	
E	1.100	1.300	0.043	0.051	
E1	1.500	1.700	0.059	0.067	
E2	0.200) REF	0.008 REF		
L	0.010	0.070	0.001	0.003	
0	7° F	REF	7° REF		

Suggested Pad Layout



Note:

- 1.Controlling dimension:in millimeters.
- 2.General tolerance:± 0.05mm.
- 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MSPESD5ZXX	SOD-523	3000



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