

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

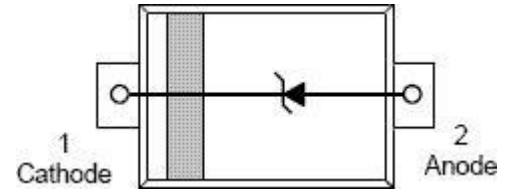
Applications

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

Features

- Small Body Outline Dimensions
- Low Body Height
- Stand-off Voltage: 3.3 V
- Peak Power up to 200 Watts @ 8 x 20 μ s Pulse
- 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

TYPE	V_{RWM}	$I_R(\mu A)$	$V_{BR}(V)@ I_T$	I_T	$V_C(V)$	$V_C(V)$	I_{PP}	P_{PK}	C
	(V)	@ V_{RWM}	(Note 1)	mA	@ $I_{PP}=5 A^*$	@ Max I_{PP}^*	(A)*	(W)*	(pF)
	Max	Max	Min		Typ	Max	Max	Max	Typ
CPDH3V3UP-MS	3.3	1.0	5.0	1.0	8.4	14.1	11.2	158	105

Absolute Ratings ($T_{amb}=25^\circ C$)

Symbol	Parameter	Value	Units	
P_{PP}	Peak Pulse Power ($t_p = 8/20\mu s$)	200	W	
T_L	Maximum lead temperature for soldering during 10s	260	$^\circ C$	
T_{stg}	Storage Temperature Range	-55 to +150	$^\circ C$	
T_{op}	Operating Temperature Range	-40 to +125	$^\circ C$	
T_j	Maximum junction temperature	150	$^\circ C$	
	IEC61000-4-2 (ESD)	air discharge contact discharge	± 15 ± 8	KV
	IEC61000-4-4 (EFT)		40	A
	ESD Voltage	Per Human Body Model	16	KV

Electrical Parameter

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T

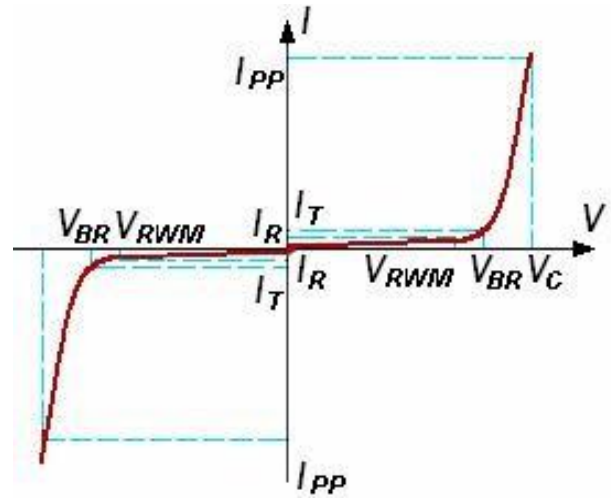


FIG1: Pulse Waveform

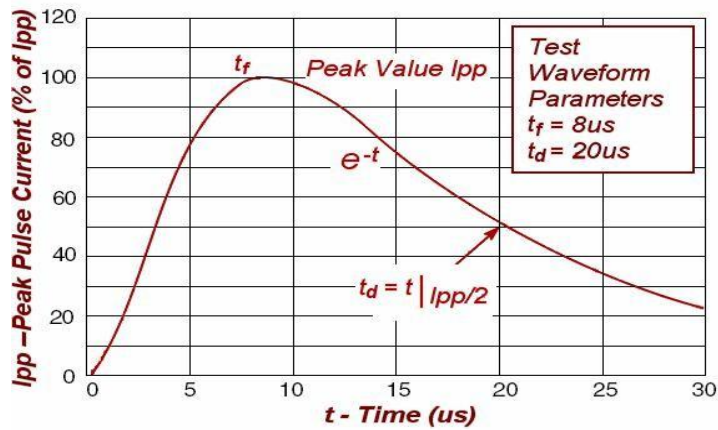
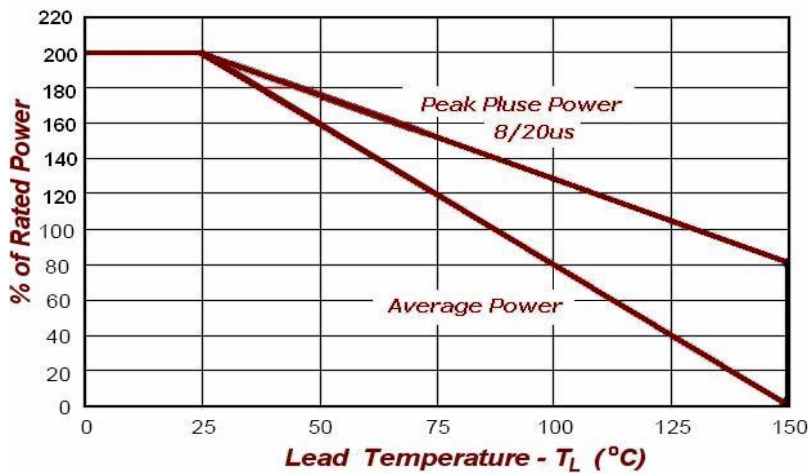
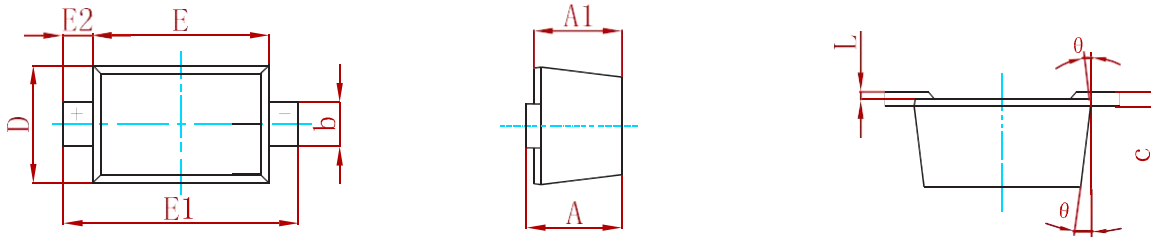


FIG2: Power Derating

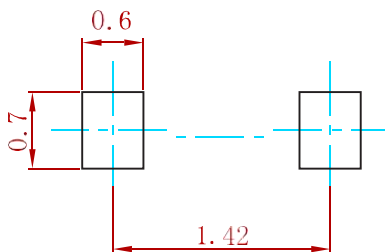


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	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
c	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° REF		7° REF	

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
CPDH3V3UP-MS	SOD-523	3000

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