

MSKSEMI

SEMICONDUCTOR



ESD



TVS



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PLED

Product data sheet

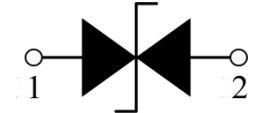
Feature

- 80W peak pulse power per line ($t_p = 8/20\mu s$)
- Bidirectional configurations
- Response time is typically $< 1ns$
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to IEC61000-4-2(ESD) $\pm 25KV$ (air), $\pm 25KV$ (contact); IEC61000-4-4 (EFT) 40A (5/50ns)

Pin Description



Schematic Diagram



Applications

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

SOD-882

Mechanical Characteristics

- Mounting position: Any
- Qualified max reflow temperature: $260^{\circ}C$
- Device meets MSL 1 requirements

Electrical characteristics per line@ $25^{\circ}C$ (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	$I_t = 1mA$	5.6		9.0	V
Reverse Leakage Current	I_R	$V_{RWM} = 5V T=25^{\circ}C$			1.0	μA
Clamping Voltage	V_{CL}	$I_{PP}=16A t_p=100ns$		24		V
Clamping Voltage	V_C	$I_{PP}=1.0A$		10	13	V
Clamping Voltage	V_C	$I_{PP}=4.5A$		18	22	V
Junction Capacitance	C_j	$V_R=0V f = 1MHz$		3	5	pF

Absolute maximum rating@ $25^{\circ}C$

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{pp}	80	W
Operating Temperature	T_J	-55 to 150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}C$

Electronics Parameter

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
P_{PP}	Peak Pulse Power
C_J	Junction Capacitance
I_F	Forward Current
V_F	Forward Voltage @ I_F

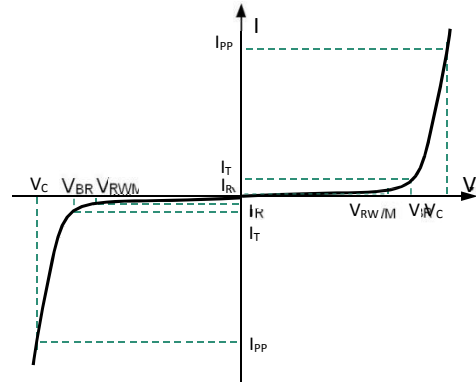


FIG1: Pulse Waveform

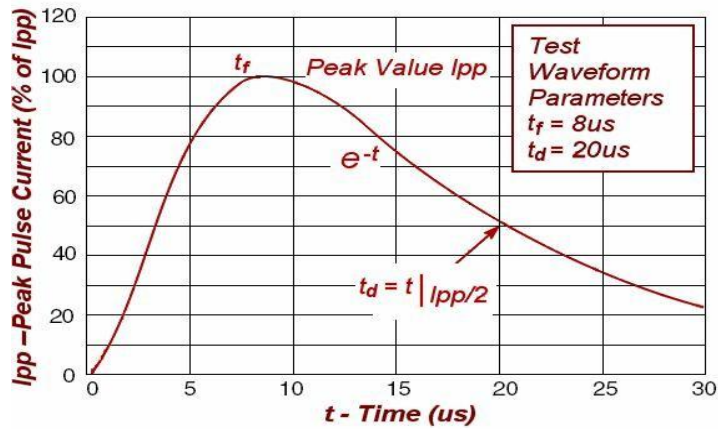
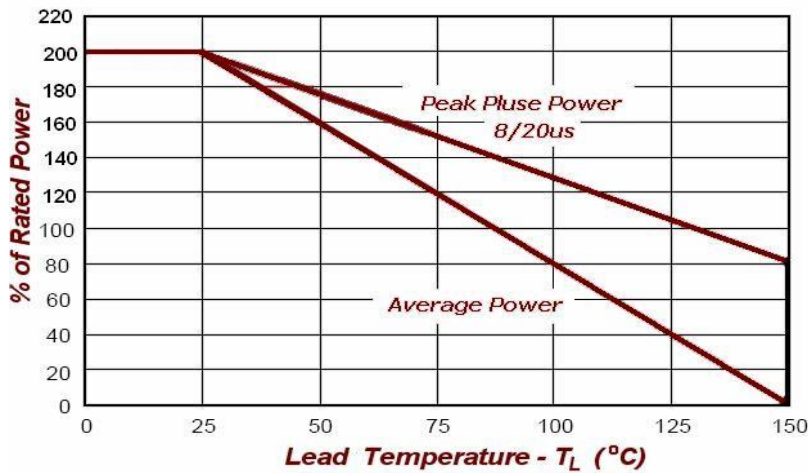
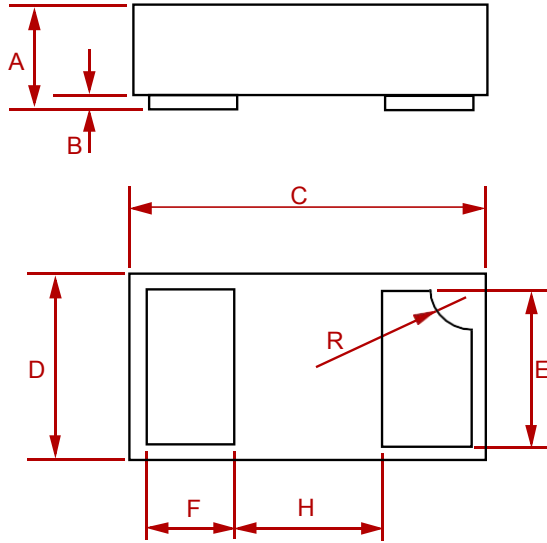


FIG2: Power Derating

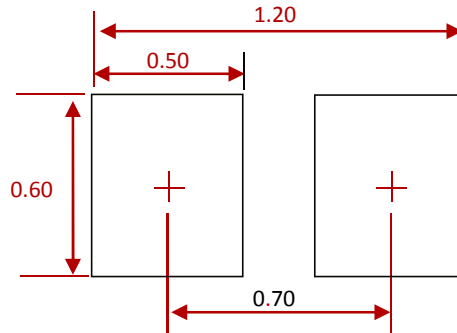


PACKAGE MECHANICAL DATA



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.0125	0.02	0.32	0.52
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15

Suggested Pad Layout



NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

REEL SPECIFICATION

P/N	PKG	QTY
ESD5V0F1BL-MS	SOD-882	10000

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