

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

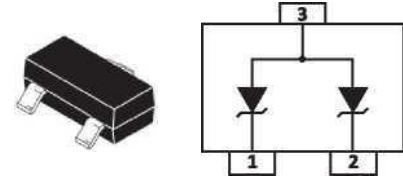
Product data sheet

**FEATURES**

- 350 Watts peak pulse power per Line( $t_p=8/20^{\wedge}S$ )
- Protects one bidirectional line or two unidirectional lines
- Low clamping voltage
- RoHS Compliant

**APPLICATIONS**

- Cellular Handsets and Accessories
- Portable Electronics
- Industrial Controls
- Set-Top Box
- Instrumentation
- Servers, Notebook, and Desktop PC



SOT-23

**IECCOMPATIBILITY**

- IEC61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)

**MAXIMUM RATINGS @25°C UNLESS OTHERWISE SPECIFIED**

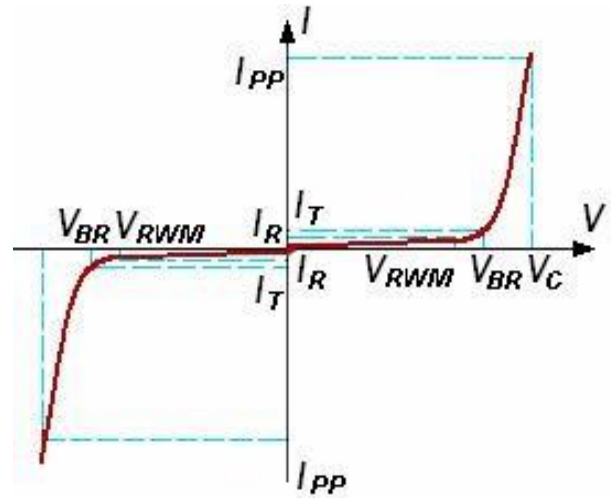
MAXIMUM RATINGS @25°C UNLESS OTHERWISE SPECIFIED			
PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power ( $t_p=8/20 \mu s$ waveform)	PPP	350	Watts
Operating Temperature Range	TJ	-55-125	°C
Storage Temperature Range	TSTG	-55-150	°C

**ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED**

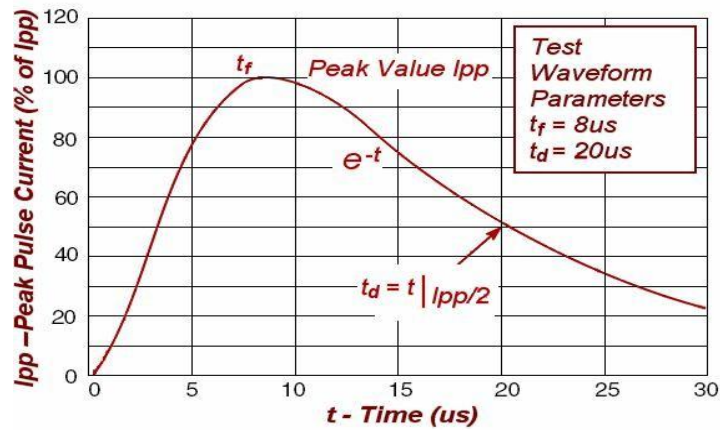
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED									
PART NUMBER	MARKING	V RWM (V) Max.	V BR (V) Min.	I T (mA)	V c @1A Max.	V c		I R (uA) Max.	C T (pF) Max.
						Max.	@A		
MSKSM03	M03	3.3	4.0	1	6.5	15.0	25	100	400
MSKSM05	M05	5.0	6.0	1	9.8	16.0	24	10	300
MSKSM08	M08	8.0	8.5	1	13.4	19.0	18	5	250
MSKSM12	M12	12.0	13.3	1	19.0	24.0	13	1	150
MSKSM15	M15	15.0	16.7	1	24.0	28.0	6	1	100
MSKSM24	M24	24.0	26.7	1	43.0	52.0	6	1	90

**Electrical Parameter**

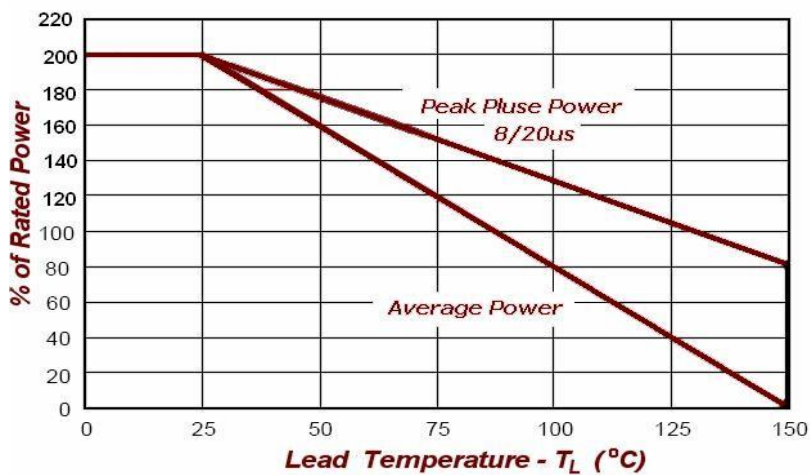
Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$



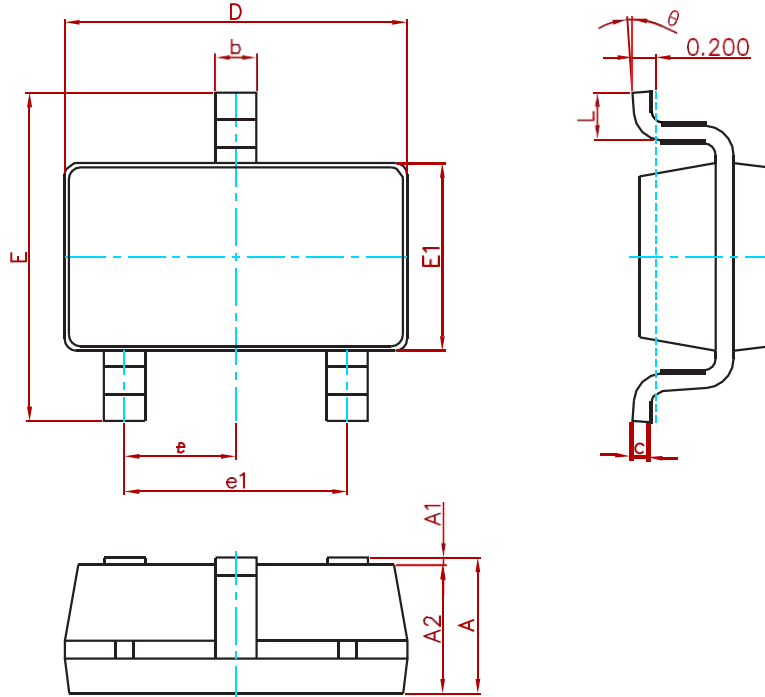
**FIG1: Pulse Waveform**



**FIG2: Power Derating**

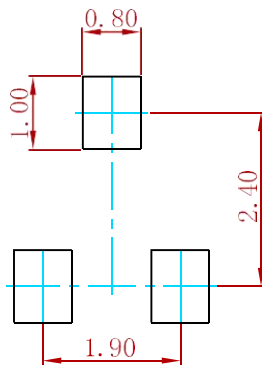


**PACKAGE MECHANICAL DATA**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
theta	0°	8°	0°	8°

**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
MSKSM03-MSKSM24	SOT-23	3000

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