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SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

SP0502BAHTG-MS

Product specification

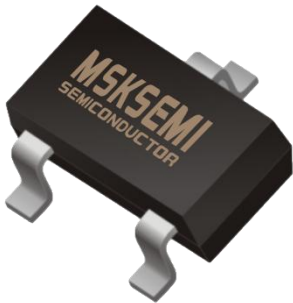
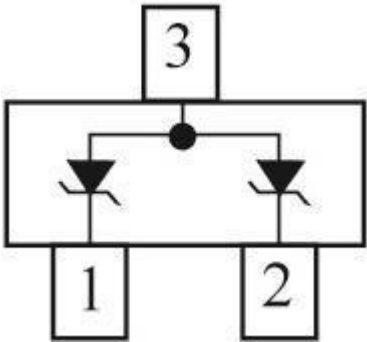

FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S-prefix for automotive and other applications requiring unique site and control change requirements;AEC-Q101 qualified and PPAP capable.
- 2 Unidirectional transil functions
- Low leakage current:IR max< 20 μA at VRM
- 300W peak pulse power(8/20μs)
- Transient protection for data lines as per IEC61000-4-2(ESD) 15KV(air) 8KV(contact) IEC61000-4-5(Lightning) see IPPM below

APPLICATIONS

- Computers
- Printers
- Communication systems

Reference News

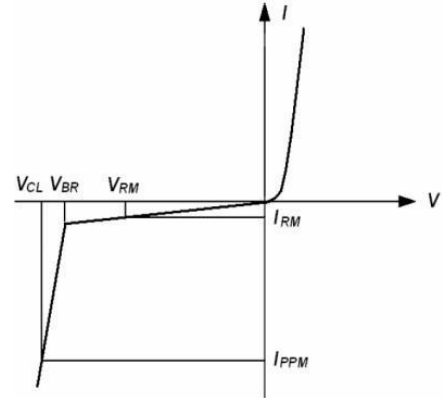
PACKAGE OUTLINE	PIN CONFIGURATION	Marking
 <p>SOT-23</p>		

ABSOLUTE RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak Pulse Power (tp = 8/20μs)	PPP	300	W
Lead Solder Temperature - Maximum (10 Second Duration)	TL	260	°C
Storage Temperature Range	Tstg	-55 ~+150	°C
Operating Temperature Range	Top	-40 ~+125	°C
Maximum junction temperature	Tj	150	°C
Electrostatic discharge	VPP		kV
IEC61000-4-2 air discharge		15	
IEC61000-4-2 contact discharge		8	

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter
VRM	Stand-off voltage
VBR	Breakdown voltage
VCL	Clamping voltage
IRM	Leakage current
IPPM	Peak pulse current



ELECTRICAL CHARACTERISTICS (Ta=25°C)

VRWM (V)	IR (μA) @VRWM	VBR (V) @IT (Note 1)	IT (mA)	VC (V) @IPP=1A	VC (V) @IPP=5A	IPP(A) @tp=8/20μs	C (pF) f=1MHz
Max.	Max.	Min.		Max.	Max.	Max.	Max.
5	5	6	1	9.8	12.5	17	220

1. 8/20 waveform used.

ELECTRICAL CHARACTERISTICS CURVES

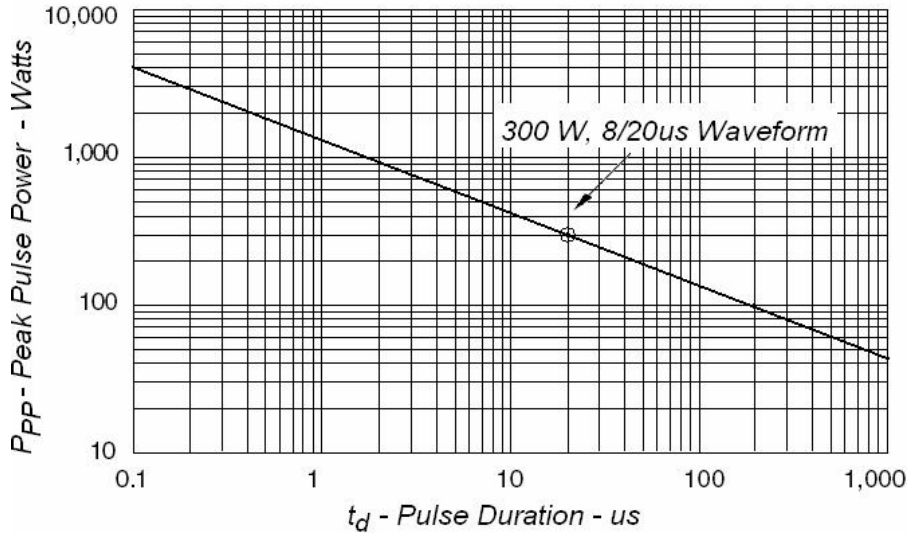


Fig1. Peak Pulse Power VS Pulse Time

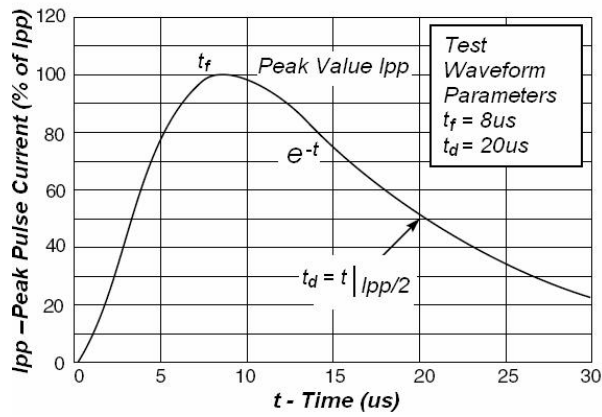


Fig2. Pulse Waveform

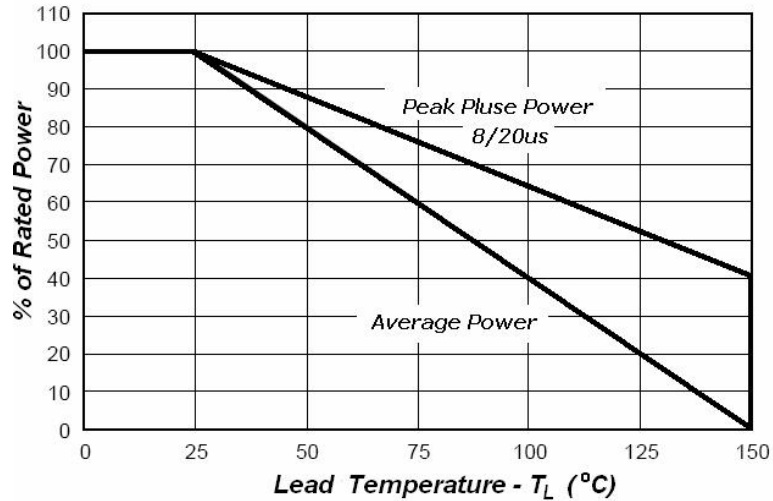
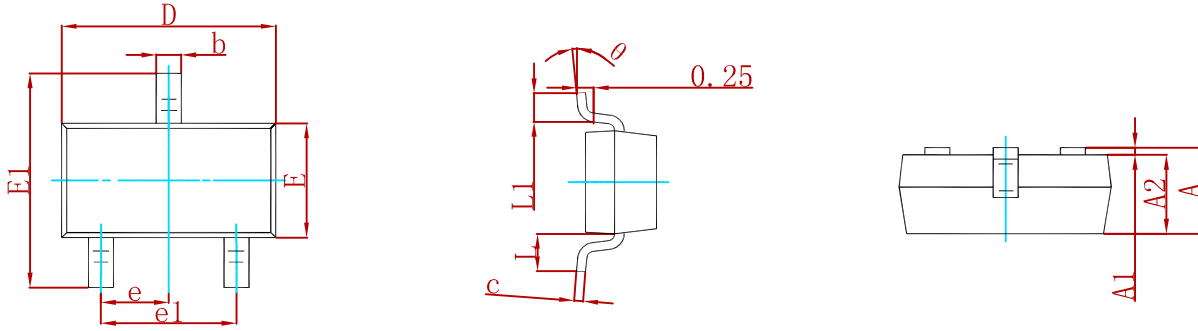


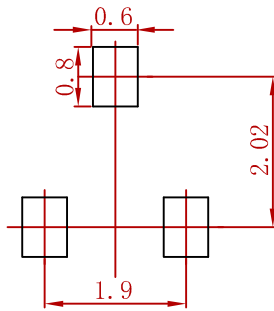
Fig3. Power Derating

PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	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
SP0502BAHTG-MS	SOT-23	3000

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