

## Surface Mount Schottky Barrier

### FEATURES

- Very low profile - typical height of 0.68mm
- Low power loss, high efficiency
- Ideal for automated placement
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



Micro SMA



### MECHANICAL DATA

**Case:** Micro SMA

Molding compound, UL flammability classification rating 94V-0

Packing code with suffix "G" means green compound (halogen-free)

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

**Polarity:** Indicated by cathode band

**Weight:** 0.006 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)					
PARAMETER	SYMBOL	SS22M	SS23M	SS24M	UNIT
Marking code		D	E	F	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	2			A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	25			A
Maximum instantaneous forward voltage (Note 1) @ 2.0A / T <sub>J</sub> =25°C @ 2.0A / T <sub>J</sub> =125°C	V <sub>F</sub>	0.60 0.55			V
Maximum reverse current @ rated VR @ T <sub>J</sub> =25 °C @ T <sub>J</sub> =125 °C	I <sub>R</sub>	150 15			μA mA
Typical junction capacitance (Note 2)	C <sub>J</sub>	35			pF
Typical thermal resistance	R <sub>θJL</sub> R <sub>θJC</sub> R <sub>θJA</sub>	15 20 105			°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150			°C
Storage temperature range	T <sub>STG</sub>	-55 to +150			°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

Note 2: Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
SS2xM (Note 1, 2)	RS	G	Micro SMA	3,000 / 7" Plastic reel

Note 1: "x" defines voltage from 20V (SS22M) to 40V (SS24M)

Note 2: Whole series with green compound

EXAMPLE				
PREFERRED PART NO.	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
SS24M RSG	SS24M	RS	G	Green compound

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

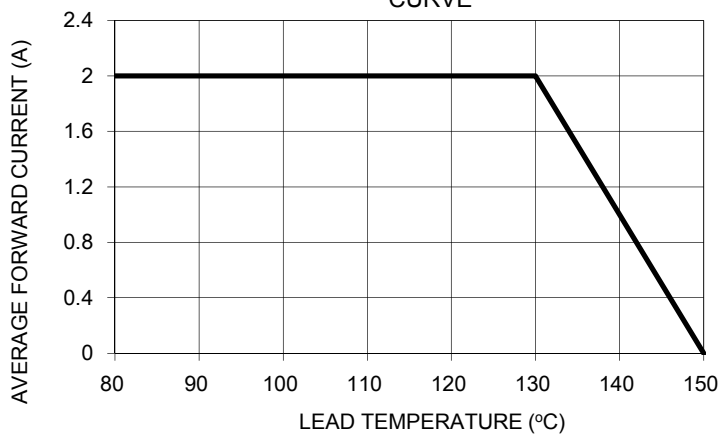


FIG. 2 MAXIMUM FORWARD SURGE CURRENT

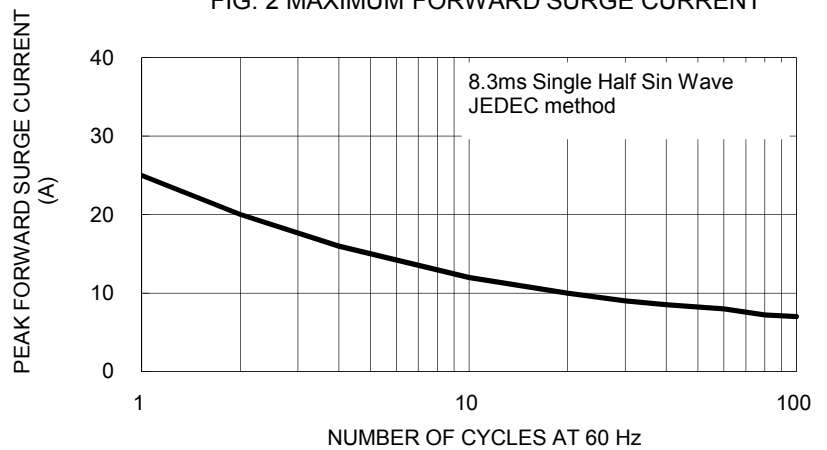


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

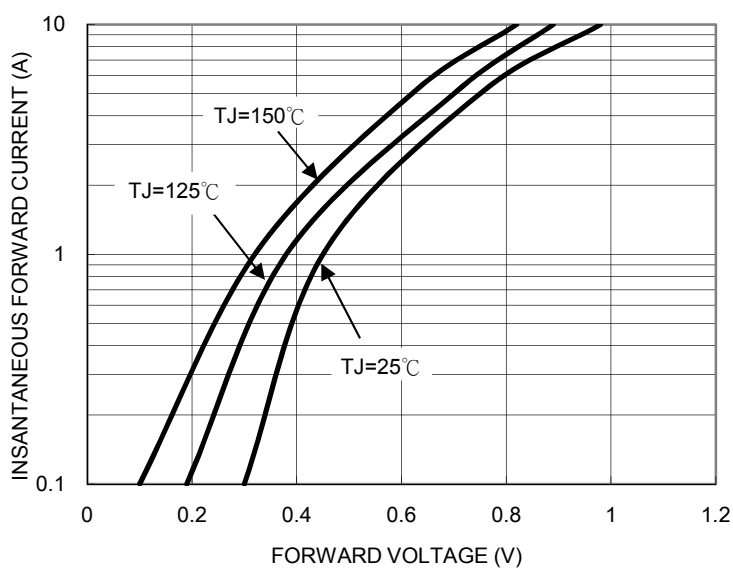


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

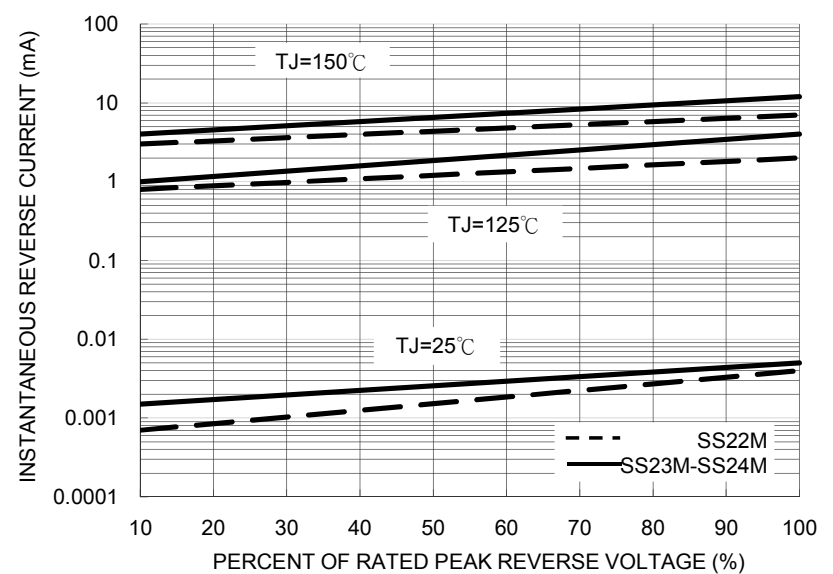


FIG. 5 TYPICAL JUNCTION CAPACITANCE

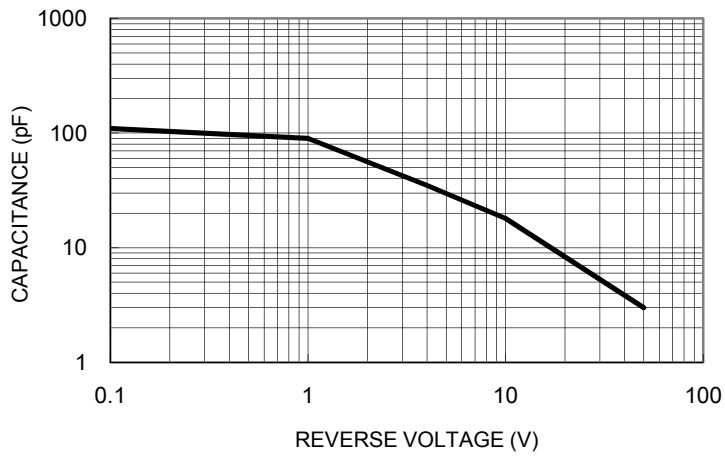
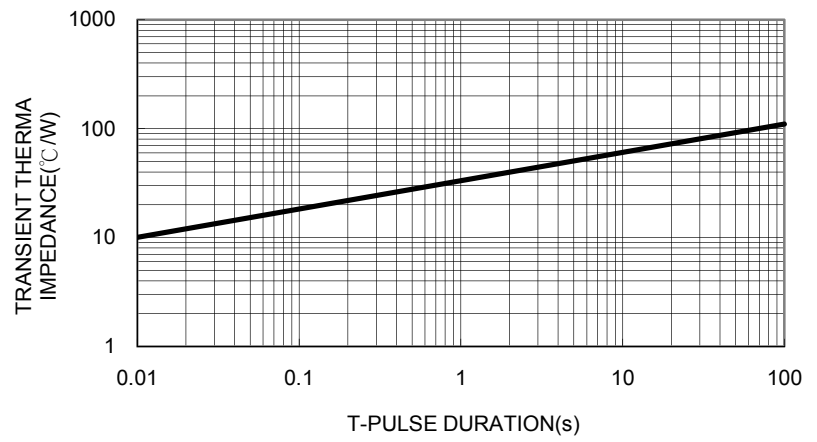
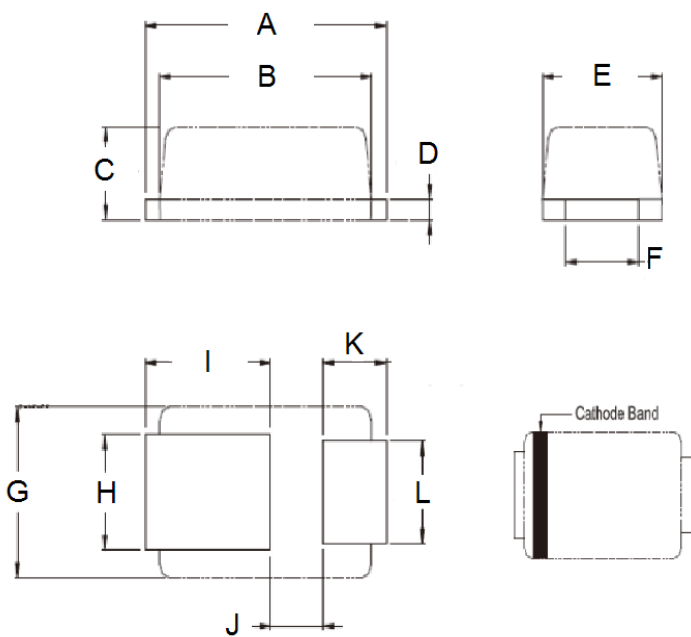


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE



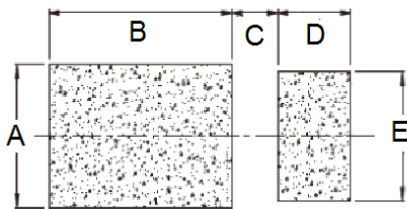
PACKAGE OUTLINE DIMENSIONS

**Micro SMA**



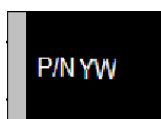
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.30	2.70	0.091	0.106
B	2.10	2.30	0.083	0.091
C	0.63	0.73	0.025	0.029
D	0.10	0.20	0.004	0.008
E	1.15	1.35	0.045	0.053
F	0.65	0.85	0.026	0.034
G	1.15	1.35	0.045	0.053
H	0.75	0.95	0.030	0.037
I	1.10	1.50	0.043	0.059
J	0.55	0.75	0.022	0.030
K	0.55	0.75	0.022	0.030
L	0.65	0.85	0.026	0.034

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	1.1	0.043
B	2.0	0.079
C	0.5	0.020
D	0.8	0.031
E	1.0	0.039

MARKING DIAGRAM



P/N = Marking code  
YW = Date Code

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