

## 2A, 20V - 40V Surface Mount Schottky Barrier Rectifiers

### FEATURES

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


**HALOGEN  
FREE**

### MECHANICAL DATA

**Case:** Micro SMA

Molding compound, UL flammability classification rating 94V-0

**Micro SMA**

Moisture sensitivity level: level 1, per J-STD-020

Part no. with suffix "H" means AEC-Q101 qualified

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

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

Meet JESD 201 class 2 whisker test

**Polarity:** Indicated by cathode band

**Weight:** 0.006 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted)							
PARAMETER	SYMBOL	SS22M	SS23M	SS24M	UNIT		
Marking code		D	E	F			
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	V		
Maximum average forward rectified current	$I_{F(AV)}$		2		A		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$		25		A		
Maximum instantaneous forward voltage (Note 1) @ 2.0A / $T_J=25^\circ\text{C}$ @ 2.0A / $T_J=125^\circ\text{C}$	$V_F$		0.60 0.55		V		
Maximum reverse current @ rated $V_R$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	150		150	$\mu\text{A}$		
		15			mA		
Typical junction capacitance (Note 2)	$C_J$	35			pF		
Typical thermal resistance	$R_{\theta JL}$ $R_{\theta JC}$ $R_{\theta JA}$	15		15 20 105	$^\circ\text{C}/\text{W}$		
		20					
		105					
Operating junction temperature range	$T_J$	-55 to +150			$^\circ\text{C}$		
Storage temperature range	$T_{STG}$	-55 to +150			$^\circ\text{C}$		

 Note 1: Pulse test with PW=300 $\mu\text{s}$ , 1% duty cycle

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

**ORDERING INFORMATION**

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

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

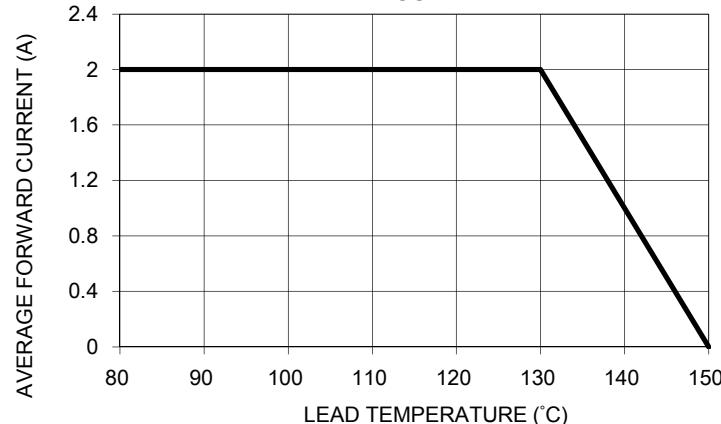
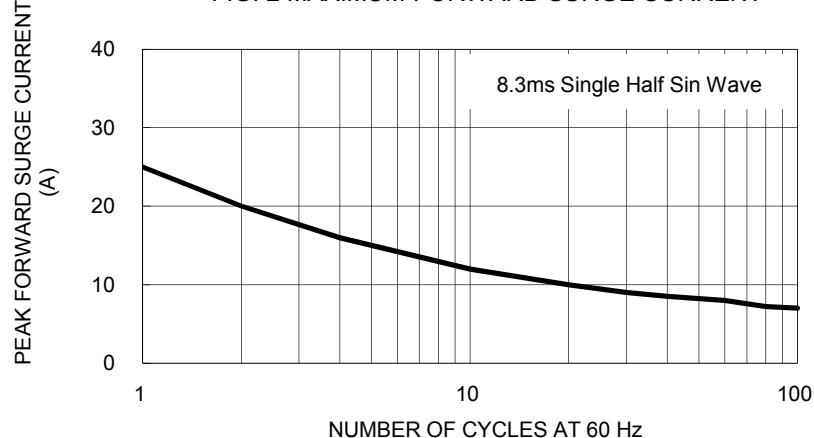
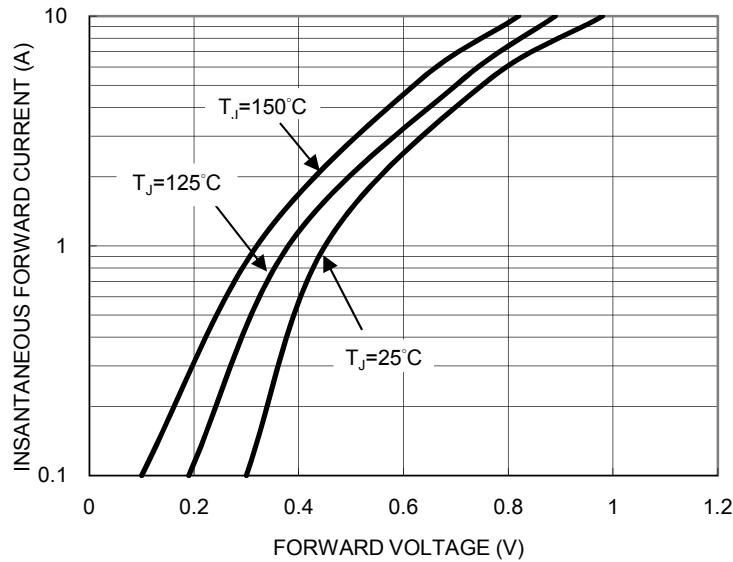
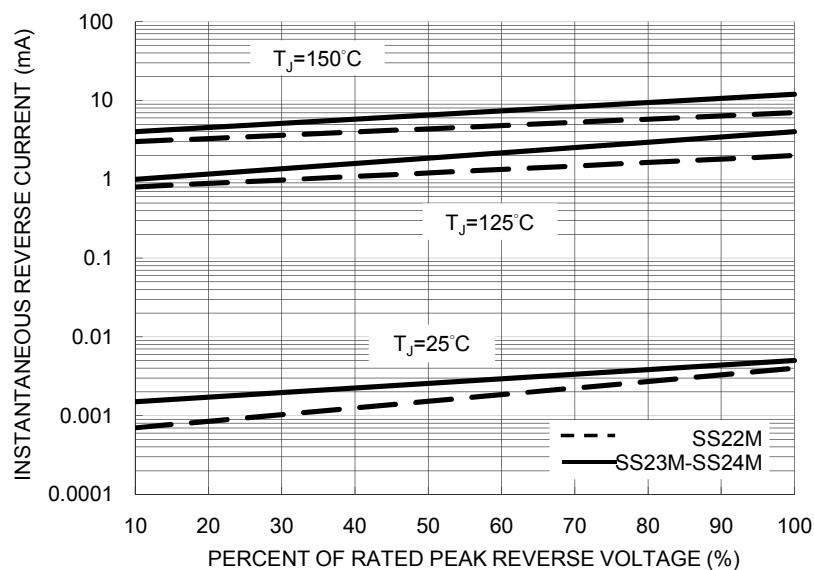
Note 2: Whole series with green compound

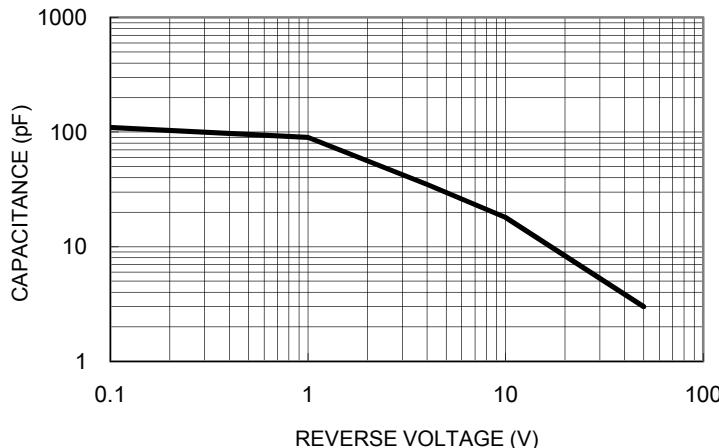
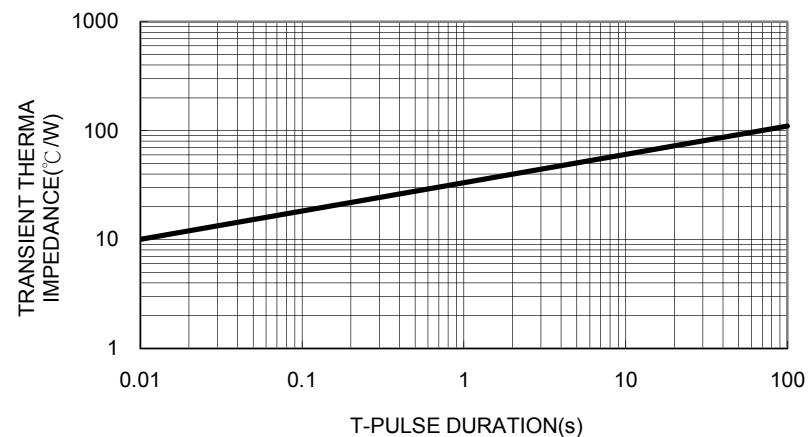
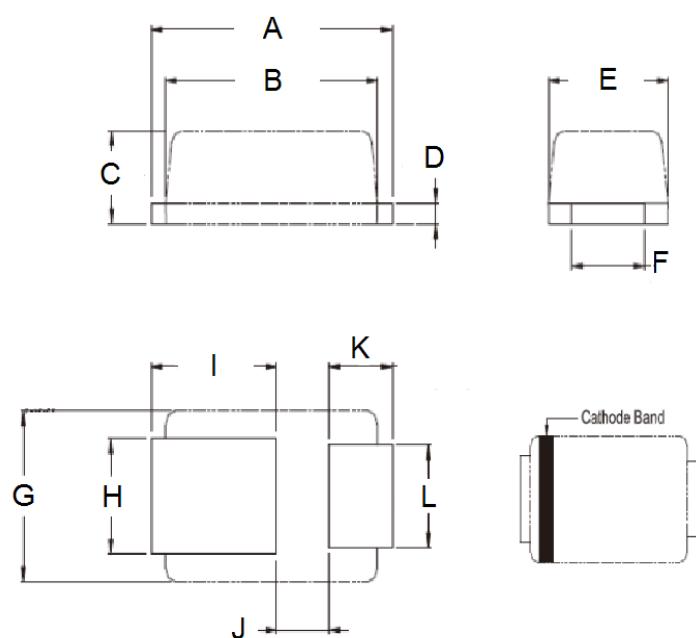
**EXAMPLE**

PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
SS24MHRSG	SS24M	H	RS	G	AEC-Q101 qualified Green compound

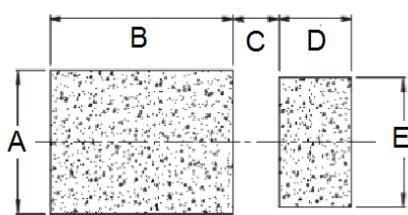
**RATINGS AND CHARACTERISTICS CURVES**

( $T_A=25^\circ\text{C}$  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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