

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

Base P/N with suffix "G" on packing code - Green compound (halogen-free)

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

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

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code 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℃ unless otherwise noted)						
PARAMETER	SYMBOL	SS13M	SS14M	SS16M		UNIT
Marking code		A	B	C		
Maximum repetitive peak reverse voltage	V _{RRM}	30	40	60		V
Maximum average forward rectified current	I _{F(AV)}	1				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) @ 0.5A / T _J =25 ℃ @ 0.5A / T _J =125 ℃ @ 1.0A / T _J =25 ℃ @ 1.0A / T _J =125 ℃	V _F	TYP	MAX	TYP	MAX	V
		0.45	-	0.51	-	
		0.35	-	0.46	-	
		0.52	0.55	0.64	0.68	
		0.46	0.50	0.57	0.60	
Maximum reverse current @ rated VR @ T _J =25 ℃ @ T _J =125 ℃ @ T _J =150 ℃	I _R	TYP	MAX	TYP	MAX	
		5	50	5	50	μA
		3	10	3	10	mA
		5.3	-	6.7	-	mA
Typical junction capacitance (Note 2)	C _j	50		40		pF
Typical thermal resistance	R _{θJL}	30				°C/W
	R _{θJC}	40				
	R _{θJA}	125				
Operating junction temperature range	T _J	-55 to +150				°C
Storage temperature range	T _{STG}	-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.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
SS1xM (Note 1, 2)	RS	RS	Suffix "G"	Micro SMA	3,000 / 7" Plastic reel

Note 1: "x" defines voltage from 30V (SS13M) to 60V (SS16M)

Note 2: Whole series with green compound

EXAMPLE

PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
SS16M RSG	SS16M		RS	G	Green compound
SS16MHRSG	SS16M	H	RS	G	AEC-Q101 Qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT
DERATING CURVE

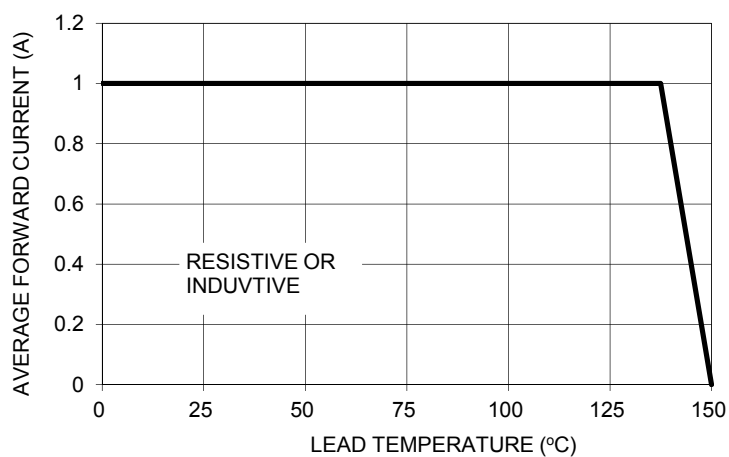


FIG. 2 MAXIMUM FORWARD SURGE CURRENT

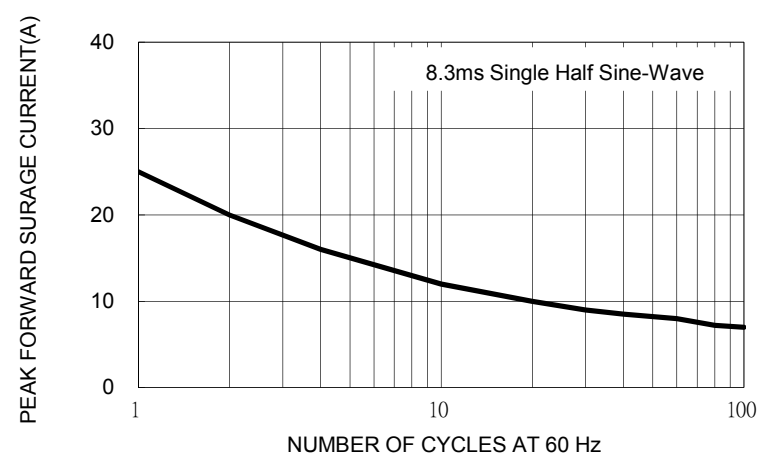


FIG. 3 TYPICAL FORWARD CHARACTERISTICS
- SS13M/14M

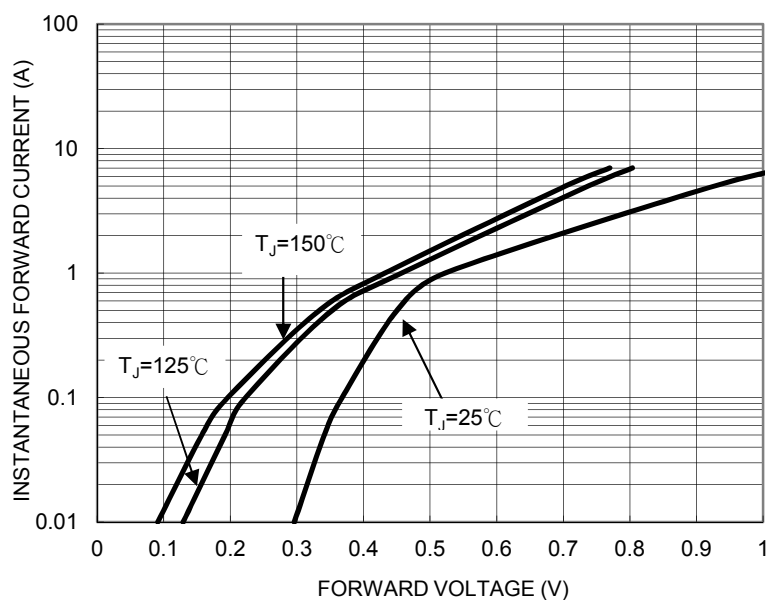


FIG. 4 TYPICAL FORWARD CHARACTERISTICS
- SS16M

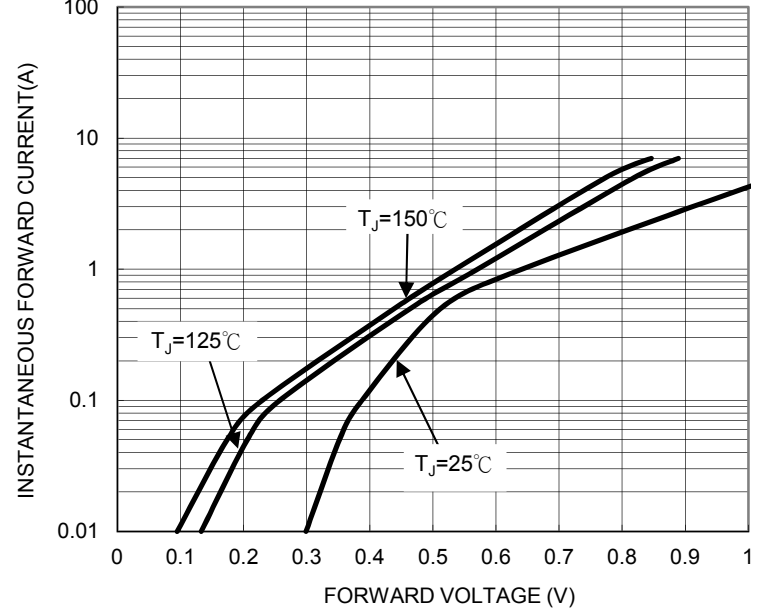


FIG. 5 TYPICAL REVERSE CHARACTERISTICS
- SS13M/14M

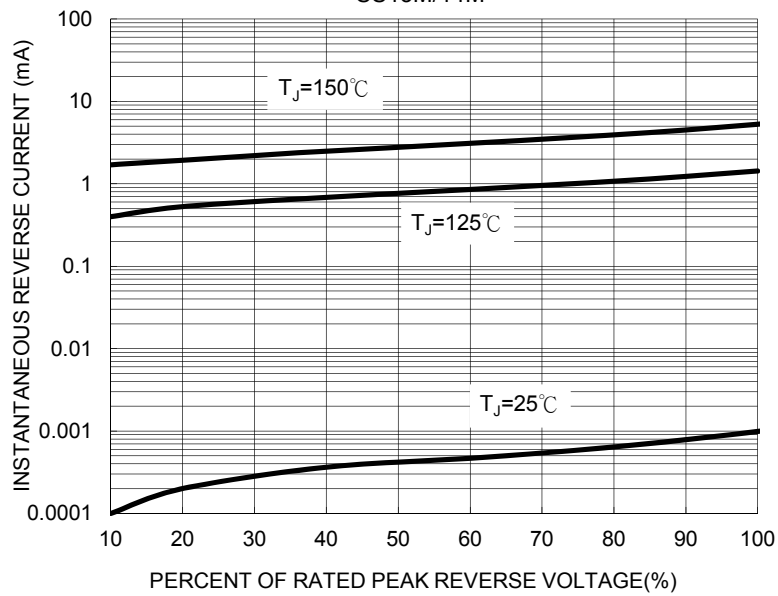


FIG. 6 TYPICAL REVERSE CHARACTERISTICS
- SS16M

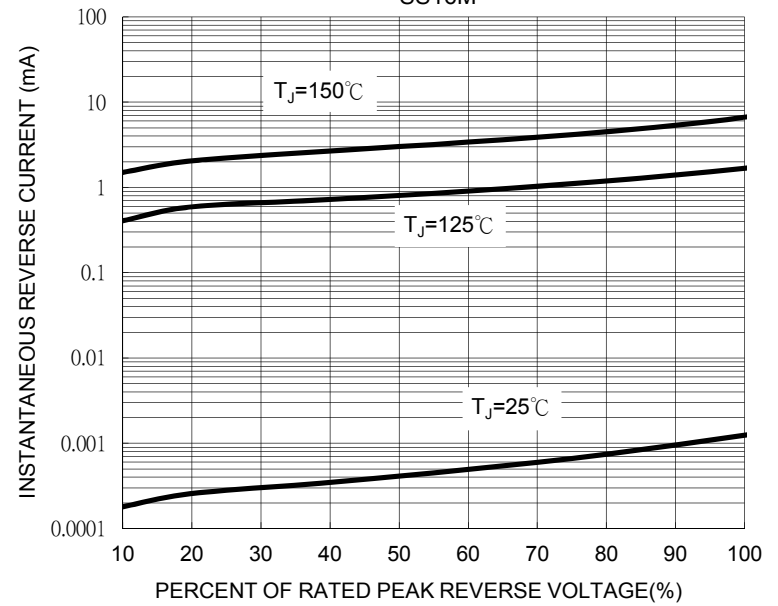


FIG. 7 TYPICAL JUNCTION CAPACITANCE

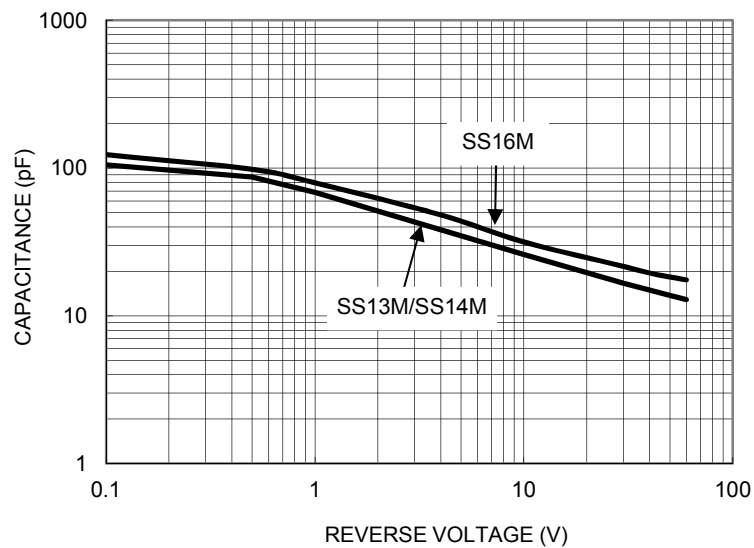
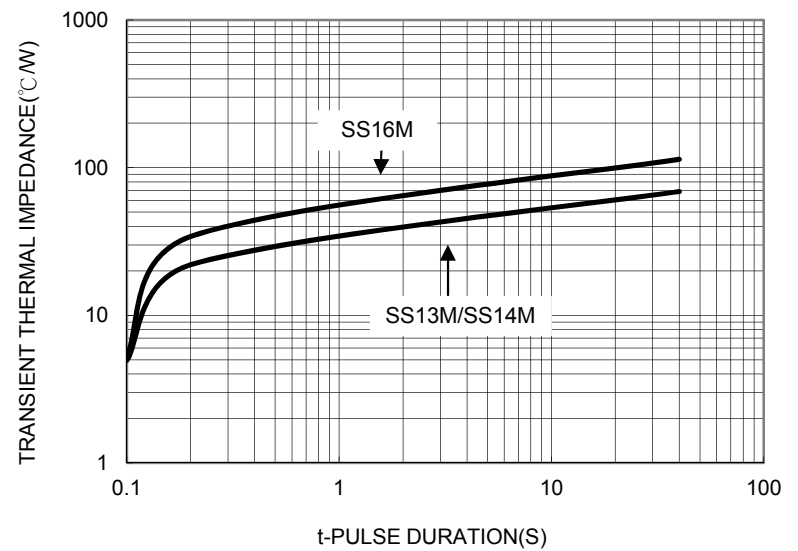
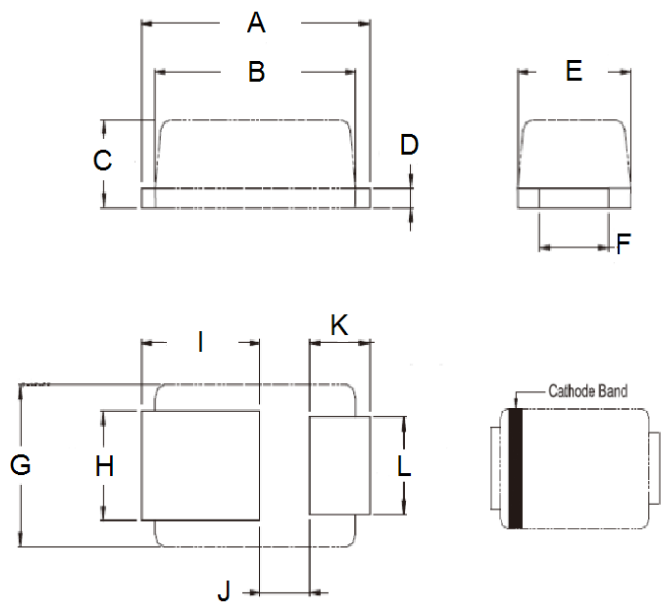


FIG. 8 TYPICAL TRANSIENT THERMAL IMPEDANCE

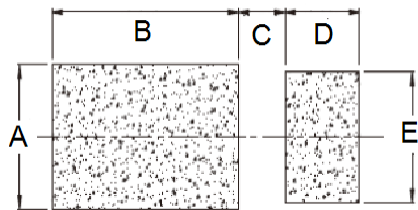


PACKAGE OUTLINE DIMENSIONS



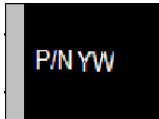
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.30	2.70	0.091	0.106
B	2.10	2.30	0.083	0.091
C	0.63	0.73	0.025	0.029
D	0.10	0.20	0.004	0.008
E	1.15	1.35	0.045	0.053
F	0.65	0.85	0.026	0.034
G	1.15	1.35	0.045	0.053
H	0.75	0.95	0.030	0.037
I	1.10	1.50	0.043	0.059
J	0.55	0.75	0.022	0.030
K	0.55	0.75	0.022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

Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Taiwan Semiconductor:](#)

[SS13M RS](#) [SS14M RS](#) [SS16M RS](#)