

Surface Mount Schottky Barrier Rectifier

SSA36

Features

- UL Flammability 94V-0 Classification
- MSL 1
- Green Mold Compound
- These Devices are Pb-Free and are RoHS Compliant

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	60	V
V_{RMS}	RMS Reverse Voltage	42	V
V_{DC}	DC Blocking Voltage	60	V
$I_{F(AV)}$	Average Rectified Current at $T_L = 75^\circ\text{C}$	3	A
I_{FSM}	Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	80	A
T_J	Operating Junction Temperature Range	-55 to +150	$^\circ\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
Ψ_{JL}	Junction-to-Lead Thermal Characteristics (Note 2)	30	$^\circ\text{C}/\text{W}$
$R_{\theta JA}$	Typical Thermal Resistance, Junction-to-Ambient	180	$^\circ\text{C}/\text{W}$

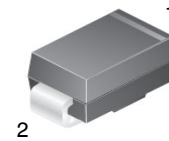
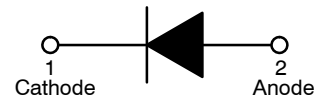
1. Per JESD51-3 recommended thermal test board. Device mounted on FR-4 PCB, board size = 76.2 mm x 114.3 mm.
2. Thermocouple soldered at cathode lead.

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_F	Forward Voltage (Note 3)	$I_F = 3.0\text{ A}$	–	–	0.75	V
I_R	DC Reverse Current	$V_R = 60\text{ V}$	–	–	0.1	mA
		$V_R = 60\text{ V}, T_A = 100^\circ\text{C}$	–	–	20	
T_{rr}	Reverse Recovery Time	$I_F = 0.5\text{ A}, I_R = 1\text{ A}, I_{rr} = 0.25\text{ A}$	–	10.74	–	ns

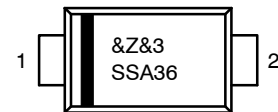
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

3. Pulse test with Pulse width = 300 μs , 1% duty cycle.



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MARKING DIAGRAM



Color Band Denotes Cathode

&Z = Assembly Plant Code
 &3 = 3-Digit Date code format (Year & Week)
 SSA36 = Specific Device Code

ORDERING INFORMATION

Device	Package	Shipping [†]
SSA36	SMA (Pb-Free, Halide Free)	7500 / Tape & Reel

[†]For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

TYPICAL PERFORMANCE CHARACTERISTICS

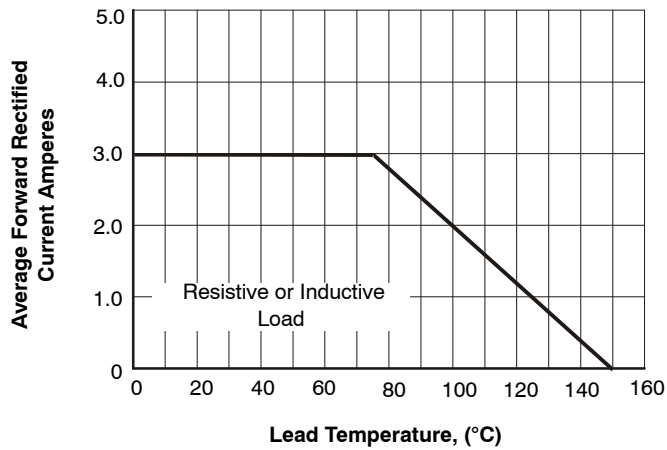


Figure 1. Forward Current Derating Curve

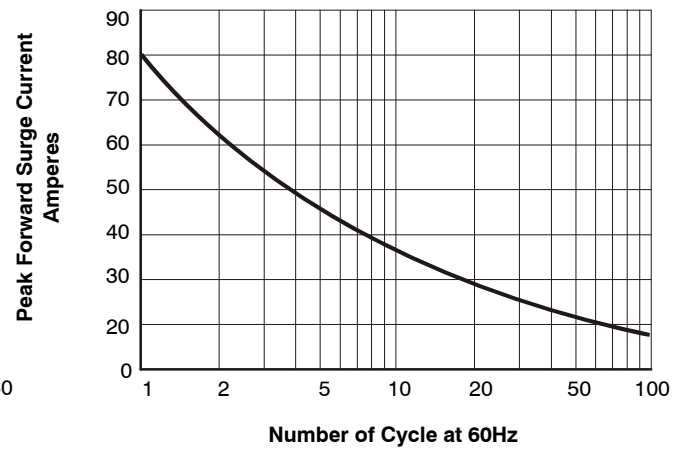


Figure 2. Maximum Non-Repetitive Surge Current

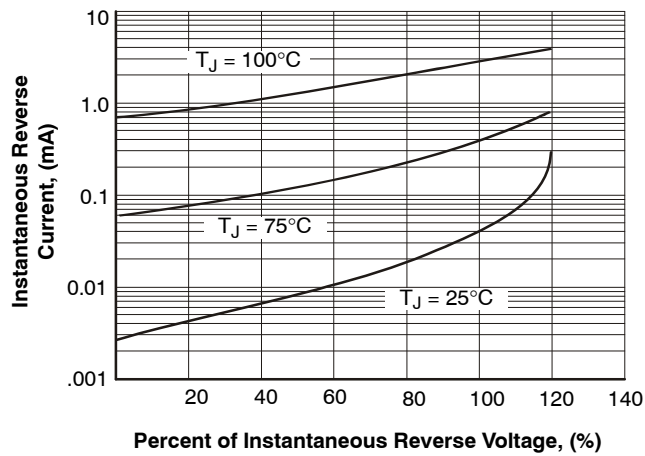


Figure 3. Typical Reverse Characteristic

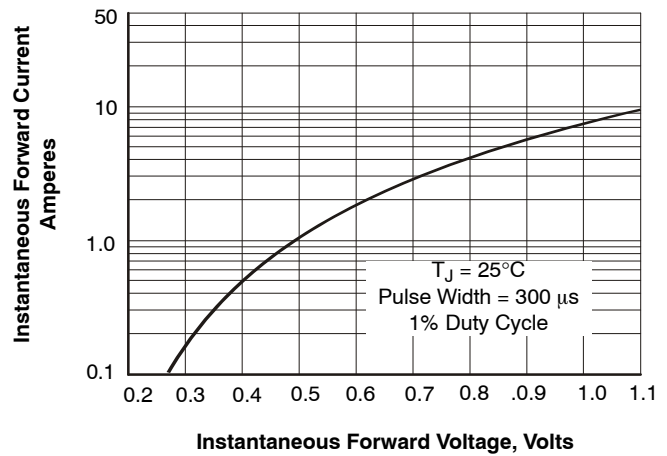


Figure 4. Typical Instantaneous Forward Characteristics

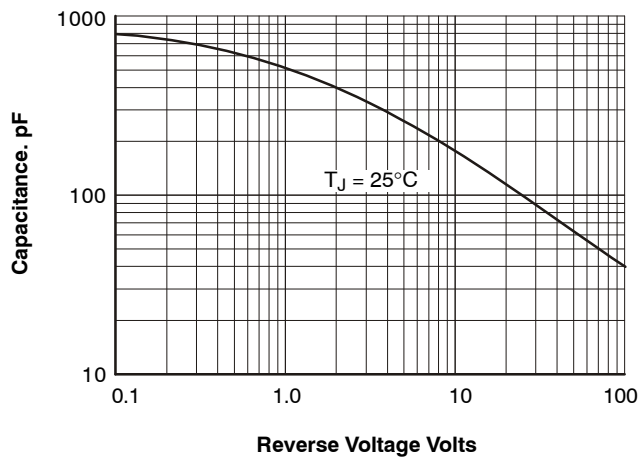


Figure 5. Typical Junction Capacitance

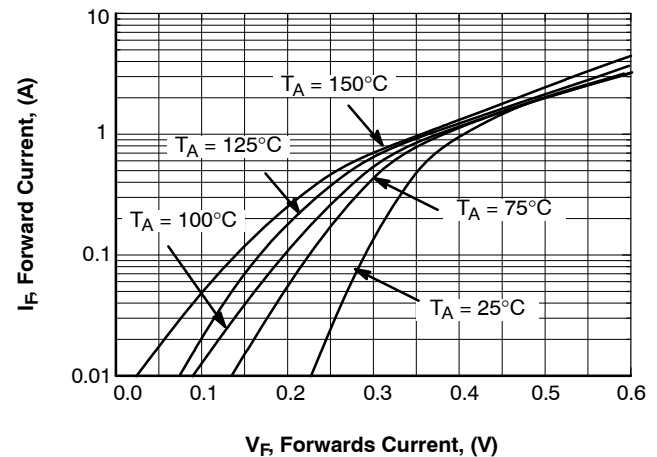
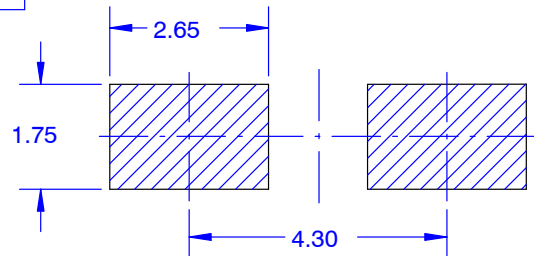
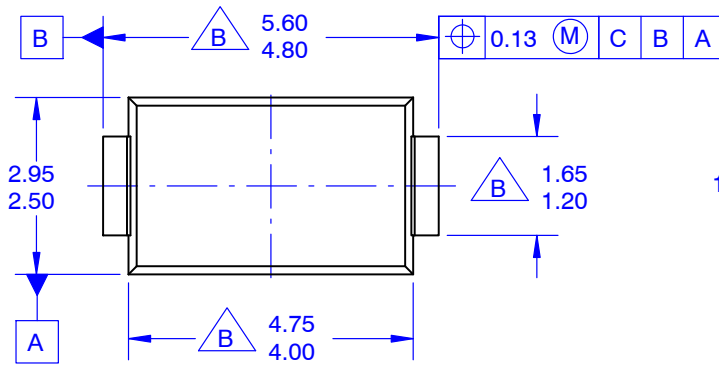


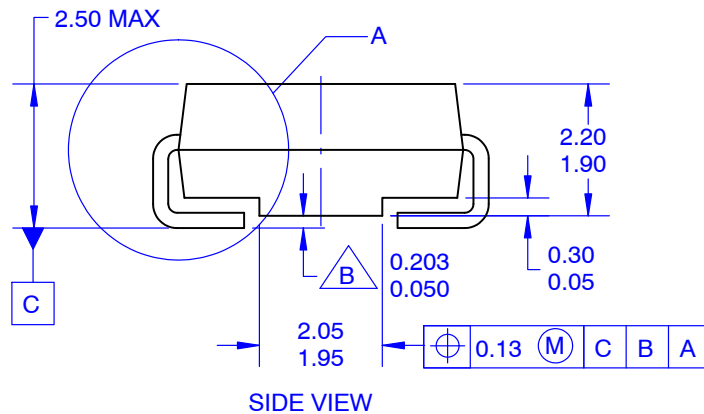
Figure 6. Typical Forward Characteristics

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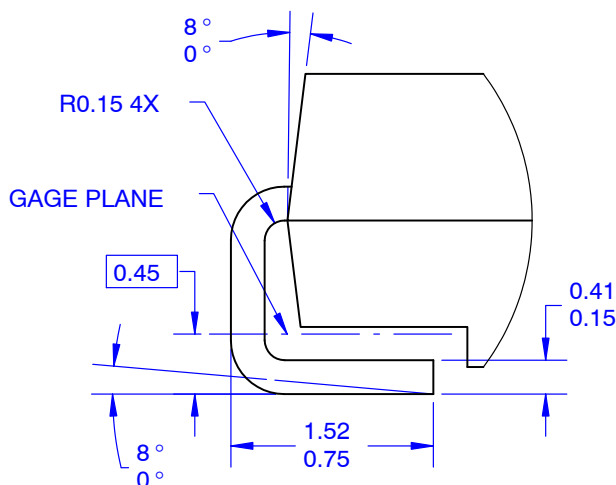


LAND PATTERN RECOMMENDATION



NOTES:

- A. EXCEPT WHERE NOTED, CONFORMS TO JEDEC DO214 VARIATION AC.
- B. DOES NOT COMPLY JEDEC STANDARD VALUE.
- C. ALL DIMENSIONS ARE IN MILLIMETERS.
- D. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
- E. DIMENSIONS AND TOLERANCE AS PER ASME Y14.5-2009.
- E. LAND PATTERN STD. DIOM5025X231M



DETAIL A
SCALE 20 : 1

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