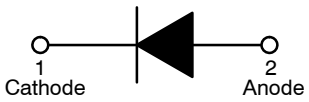
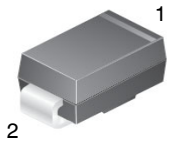
Surface Mount Schottky Barrier Rectifier

SSA36





SMA
CASE 403AE

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°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°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	°C
T_{STG}	Storage Temperature Range	−55 to +150	°C

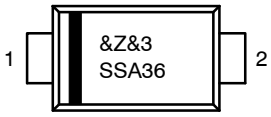
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

THERMAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

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

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.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

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

© Semiconductor Components Industries, LLC, 2015

TYPICAL PERFORMANCE CHARACTERISTICS

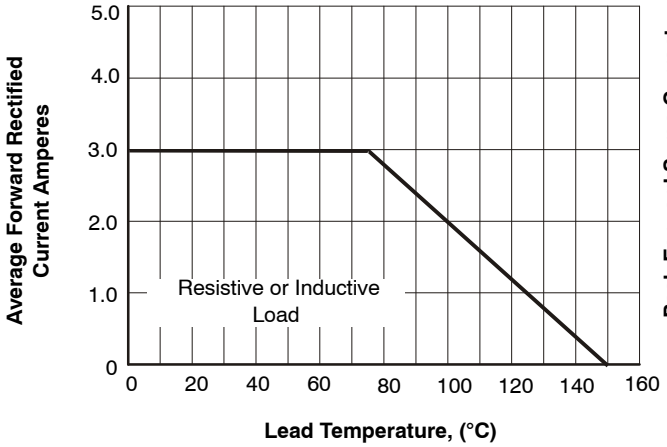


Figure 1. Forward Current Derating Curve

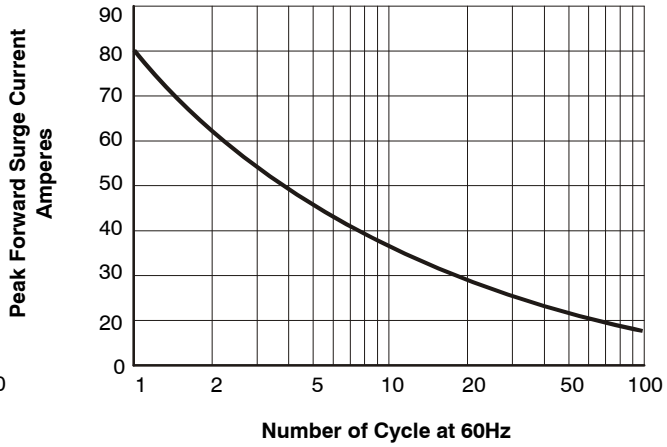


Figure 2. Maximum Non−Repetitive Surge Current

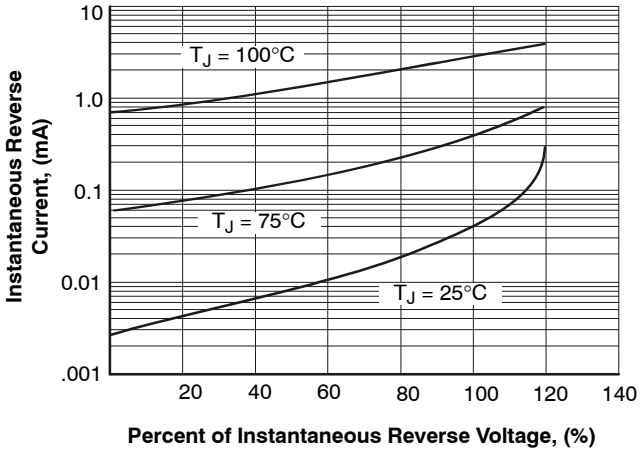


Figure 3. Typical Reverse Characteristic

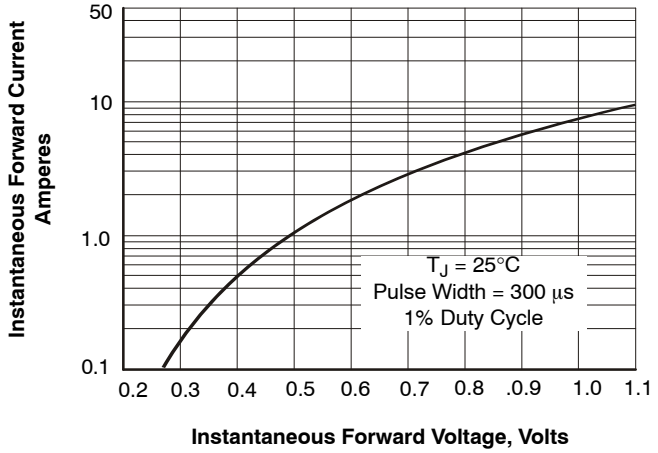


Figure 4. Typical Instantaneous Forward Characteristics

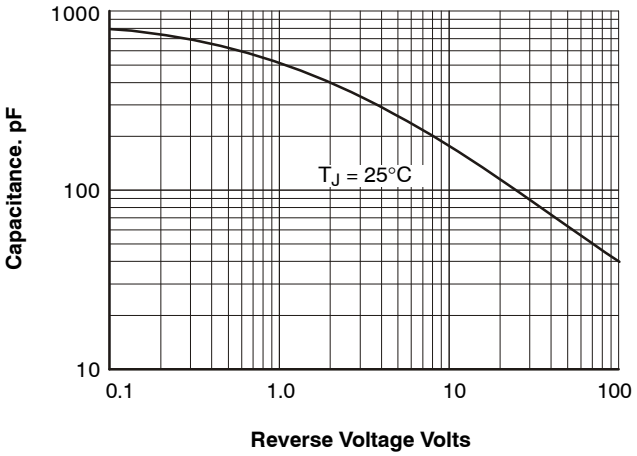


Figure 5. Typical Junction Capacitance

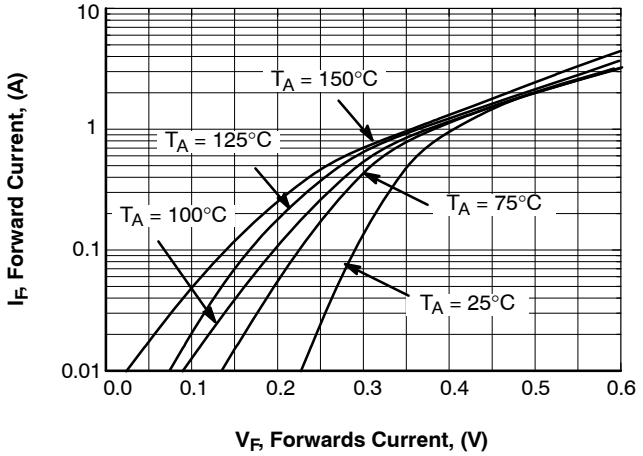
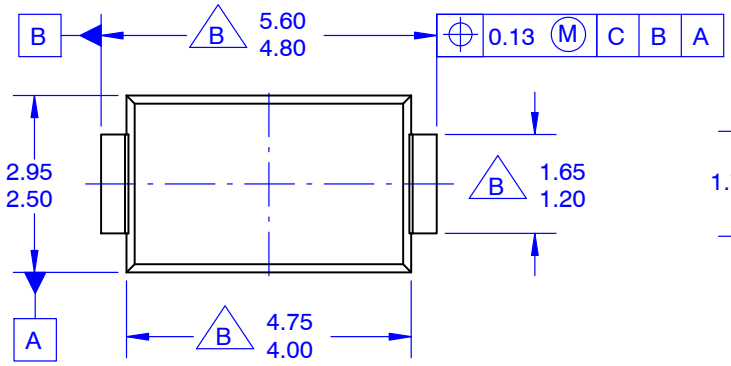


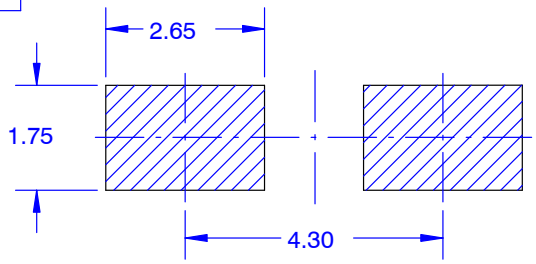
Figure 6. Typical Forward Characteristics

SMA
CASE 403AE
ISSUE O

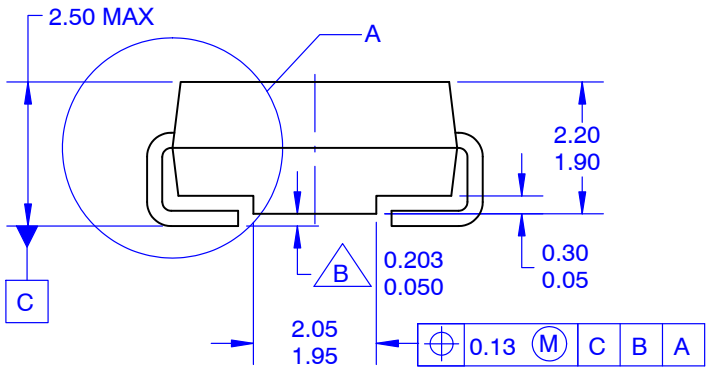
DATE 31 AUG 2016



TOP VIEW



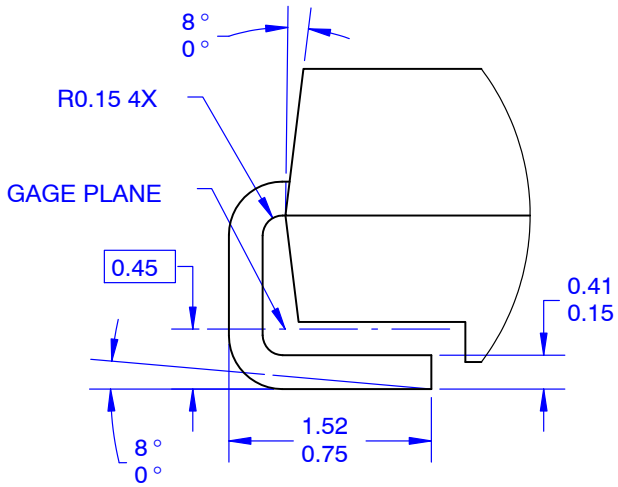
LAND PATTERN RECOMMENDATION



SIDE VIEW

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

DOCUMENT NUMBER:	**98AON13440G**	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.	
DESCRIPTION:	**SMA**		**PAGE 1 OF 1**

onsemi and onsemi are trademarks of Semiconductor Components Industries, LLC dba **onsemi** or its subsidiaries in the United States and/or other countries. **onsemi** reserves the right to make changes without further notice to any products herein. **onsemi** makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. **onsemi** does not convey any license under its patent rights nor the rights of others.

onsemi, ONSEMI , and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi**'s product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent−Marking.pdf. **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as−is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi** products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by **onsemi**. "Typical" parameters which may be provided in **onsemi** data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. **onsemi** does not convey any license under any of its intellectual property rights nor the rights of others. **onsemi** products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use **onsemi** products for any such unintended or unauthorized application, Buyer shall indemnify and hold **onsemi** and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **onsemi** was negligent regarding the design or manufacture of the part. **onsemi** is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

ADDITIONAL INFORMATION

TECHNICAL PUBLICATIONS:
Technical Library: www.onsemi.com/design/resources/technical−documentation
onsemi Website: www.onsemi.com

ONLINE SUPPORT: www.onsemi.com/support
For additional information, please contact your local Sales Representative at
www.onsemi.com/support/sales