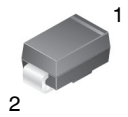
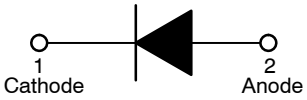
Surface Mount Schottky Barrier Rectifier

SSA210



SMA
CASE 403AE



Features

- UL Flammability 94 V−0 Classification
- MSL 1
- RoHS Compliant / Green Mold Compound
- Industrial Device Qualified per AEC−Q101 Standards
  *see authorized use policy
- This is a Pb−Free and Halid Free Device

MARKING DIAGRAM

(Color Band Denotes Cathode)

A = Assembly Location
Y = Year
WW = Work Week
SSA210 = Specific Device Code

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Symbol	Rating	Value	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	100	V
V_{RMS}	RMS Reverse Voltage	70	V
V_{DC}	DC Blocking Voltage	100	V
$I_{F(AV)}$	Average Forward Current	2	A
I_{FSM}	Peak Forward Surge Current: 8.3 ms Single Half Sine−Wave Superimposed on Rated Load (JEDEC Method)	50	A
T_J	Operating Junction Temperature Range	−55 to +175	°C
T_{STG}	Storage Temperature Range	−55 to +175	°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

Symbol	Parameter	Ratings	Unit
Ψ_{JL}	Typical Thermal Characteristics, Junction−to−Lead (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.

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

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_F	Forward Voltage (Note 3)	I_F = 2.0 A	–	–	0.8	V
I_R	Reverse Current	V_R = 100 V	–	–	0.05	mA
		V_R = 100 V, T_A = 100 °C	–	–	20	mA
Trr	Reverse Recovery Time	I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A	–	8.02	–	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.

ORDERING INFORMATION

Device	Package	Shipping†
SSA210	SMA (Pb−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 Specification Brochure, BRD8011/D.

TYPICAL CHARACTERISTICS

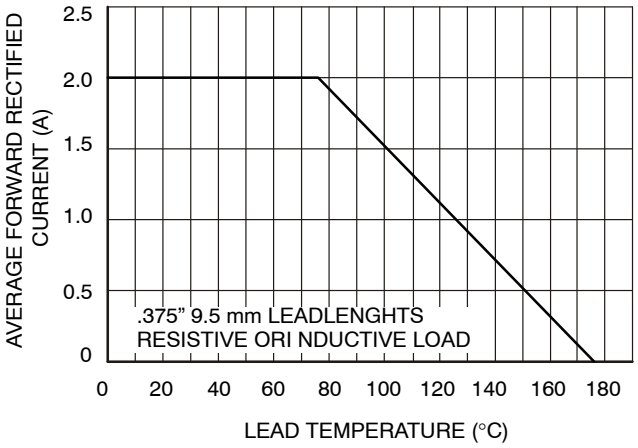


Figure 1. Forward Current Derating Curve

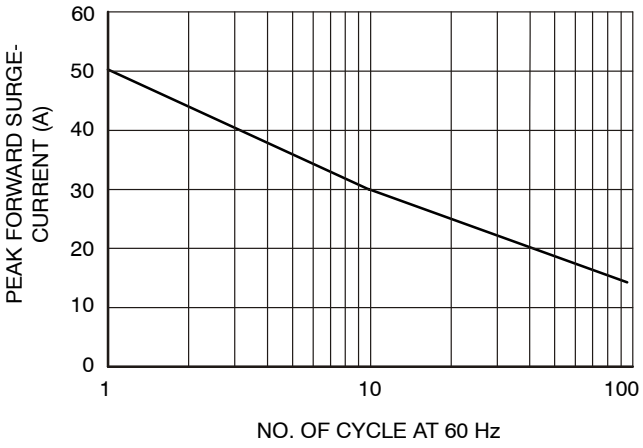


Figure 2. Maximum Non−Repetitive Peak Forward Surge Current

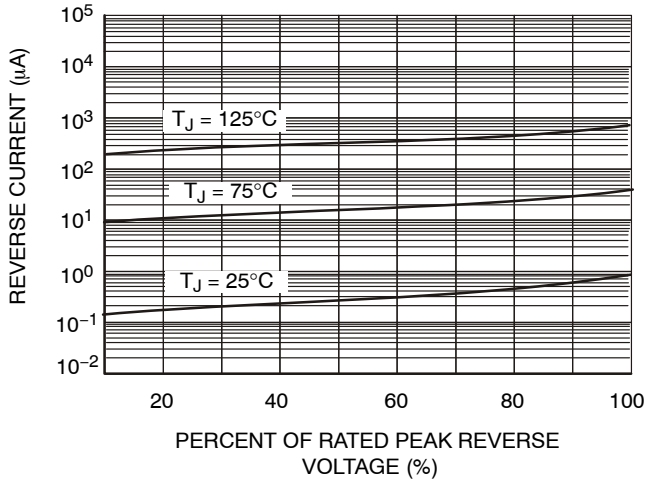


Figure 3. Typical Reverse Characteristics

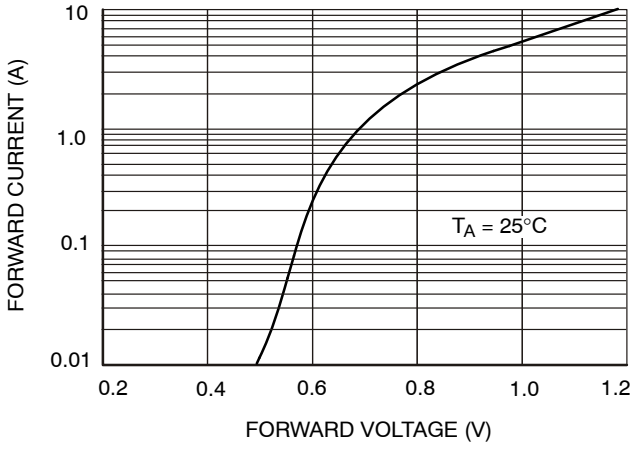


Figure 4. Typical Instantaneous Forward Characteristics

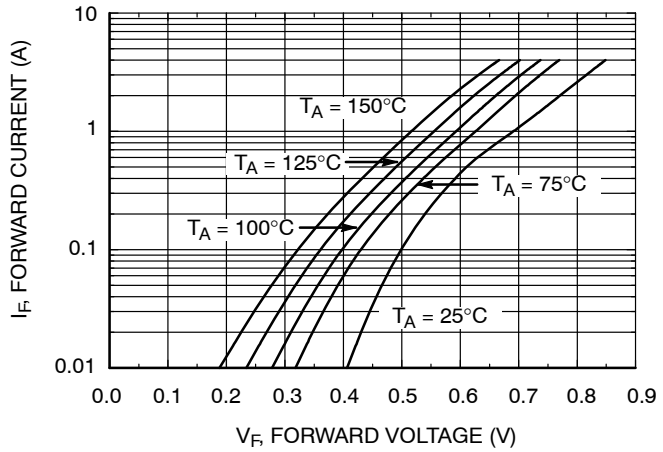


Figure 5. Typical Forward Characteristics

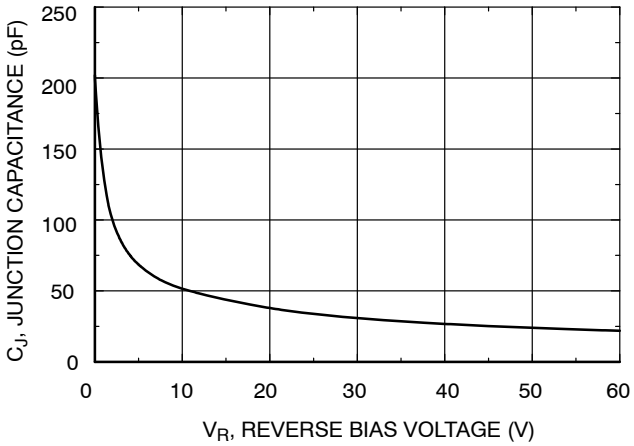
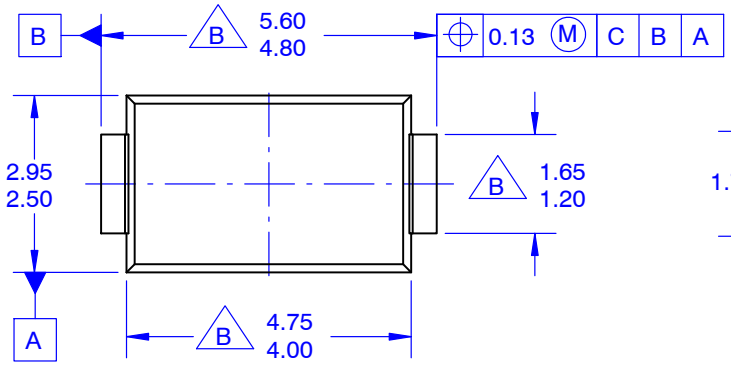


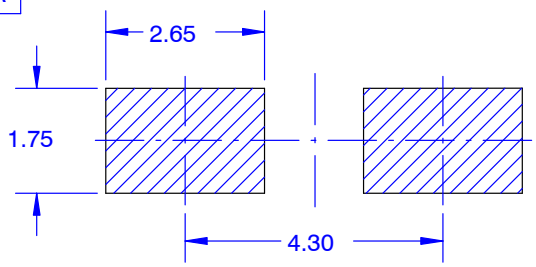
Figure 6. Typical Junction Capacitance

SMA
CASE 403AE
ISSUE O

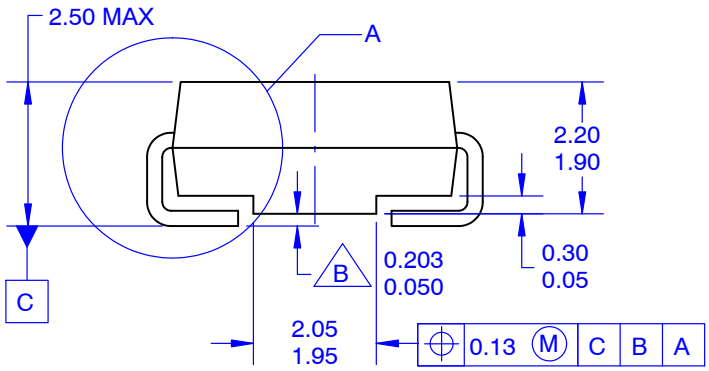
DATE 31 AUG 2016



TOP VIEW



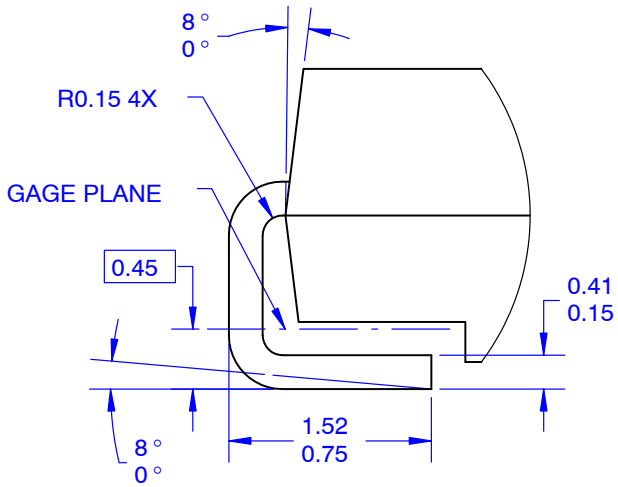
LAND PATTERN RECOMMENDATION



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**

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

◊