

Surface Mount Schottky Barrier Rectifier

SSA24

Features

- UL Flammability 94V-0 Classification
- MSL 1
- Industrial Device Qualified per AEC-Q101 Standards. * see authorized use policy
- This Device is Pb-Free, Halogen 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	40	V
V _{RMS}	RMS Voltage	28	V
V _{DC}	DC Blocking Voltage	40	V
I _{F(AV)}	Average Forward Current at $T_L = 75^{\circ}\text{C}$	2	Α
I _{FSM}	Peak Forward Surge Current: 8.3 ms Single Half Sine–Wave Superimposed on Rated Load (JEDEC Method)	50	Α
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
$\Psi_{\sf JL}$	Typical Thermal Characteristics, Junction-to-Lead (Note 1)	20	°C/W
$R_{\theta JA}$	Typical Thermal Resistance, Junction-to-Ambient (Note 1)	75	°C/W

^{1.} Mounted on P. C. Board with 8 mm² (0.013 mm thick) Copper pad Areas.

1

SMA CASE 403AE

CONNECTION DIAGRAM



MARKING DIAGRAM



(Color Band Denotes Cathode)

&Z = Assembly Plant Code

&3 = Numeric Date Code (Year & Week)

SSA24 = Specific Device Code

ORDERING INFORMATION

Device	Package	Shipping [†]
SSA24	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 Specifications Brochure, BRD8011/D.

ELECTRICAL CHARACTERISTICS

(Values are at T_A = 25°C unless otherwise noted.)

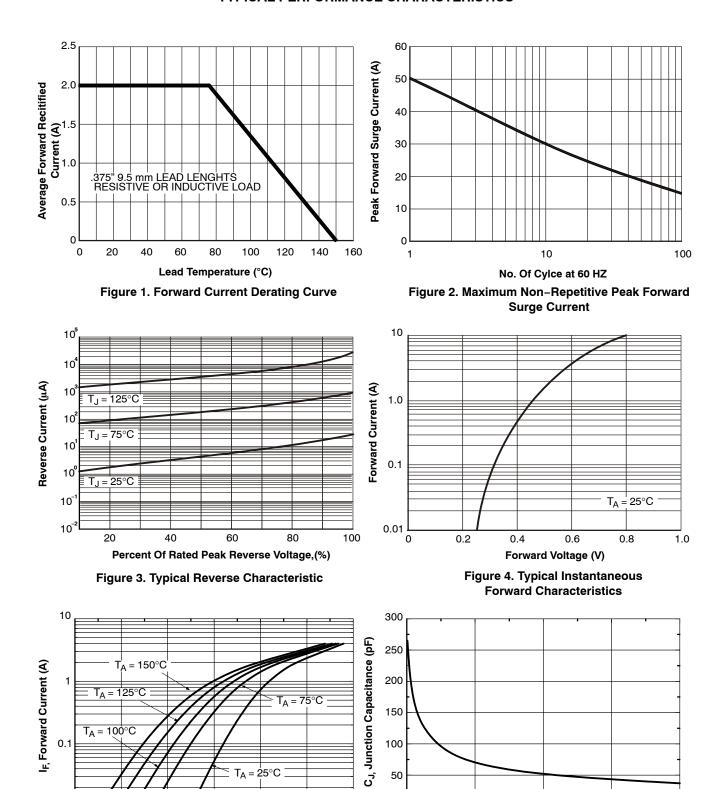
Symbol	Parameter	Test Conditions	Min	Тур	Max	Unit
V _F	Forward Voltage (Note 2)	I _F = 2.0 A	-	-	0.5	V
I _R	DC Reverse Current	V _R = 40 V	-	_	0.2	mA
		V _R = 40 V, T _A = 100°C	-	-	20	
T _{rr}	Reverse Recovery Time	I _F = 0.5 A, I _R = 1 A, I _{rr} = 0.25 A	_	9.84	_	nA

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.

1

2. Pulse Test Pulse Width = 300 μs,1% Duty Cycle.

TYPICAL PERFORMANCE CHARACTERISTICS



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0.6

0.01

0.0

0.1

0.2

0.3

V_{F, Forward Voltage} (V)

Figure 5. Typical Forward Characteristics

0.4

0.5

0

0

10

V_{R.} Reverse Bias Voltage (V)

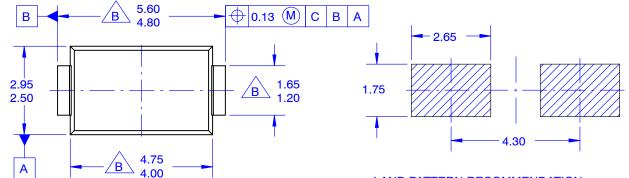
Figure 6. Typical Junction Capacitance

40



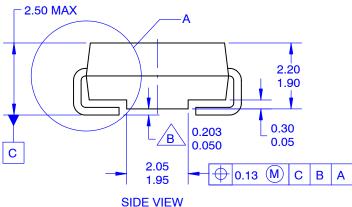
SMA CASE 403AE ISSUE O

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TOP VIEW

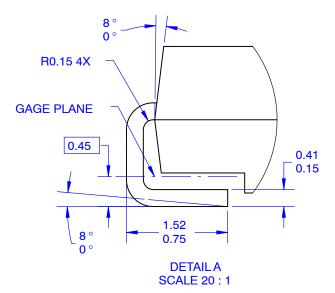
LAND PATTERN RECOMMENDATION



NOTES:

- A. EXCEPT WHERE NOTED, CONFORMS

 \(\times \text{ TO JEDEC DO214 VARIATION AC.} \)
- 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



DESCRIPTION	SMA		DAGE 1 OF 1
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