# onsemi

## 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

<b>ABSOLUTE MAXIMUM RATINGS</b> (T <sub>A</sub> = 25°C unless otherwise noted)						
Symbol	Parameter	Value	Unit			
V <sub>RRM</sub>	Recurrent Peak Reverse Voltage	40	V			
V <sub>RMS</sub>	RMS Voltage	28	V			
V <sub>DC</sub>	DC Blocking Voltage	40	V			
I <sub>F(AV)</sub>	Average Forward Current at $T_L = 75^{\circ}C$	2	A			
I <sub>FSM</sub>	Peak Forward Surge Current: 8.3 ms Single Half Sine–Wave Superimposed on Rated Load (JEDEC Method)	50	A			
TJ	Operating Junction Temperature Range	–55 to +150	°C			
T <sub>STG</sub>	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** ( $T_A = 25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
$\Psi_{JL}$	Typical Thermal Characteristics, Junction-to-Lead (Note 1)	20	°C/W
$R_{\thetaJA}$	Typical Thermal Resistance, Junction-to-Ambient (Note 1)	75	°C/W

1. Mounted on P. C. Board with 8 mm<sup>2</sup> (0.013 mm thick) Copper pad Areas.

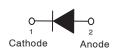
### **ELECTRICAL CHARACTERISTICS**

(Values are at  $T_A = 25^{\circ}C$  unless otherwise noted.)



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### **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 <sup>†</sup>
SSA24	SMA	7500 /
	(Pb-Free)	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, <u>BRD8011/D</u>.

Symbol	Parameter	Test Conditions	Min	Тур	Max	Unit
V <sub>F</sub>	Forward Voltage (Note 2)	I <sub>F</sub> = 2.0 A	-	-	0.5	V
I <sub>R</sub>	DC Reverse Current	V <sub>R</sub> = 40 V	-	-	0.2	mA
		$V_{R} = 40 \text{ V},  \text{T}_{A} = 100^{\circ}\text{C}$	-	-	20	
T <sub>rr</sub>	Reverse Recovery Time	$I_F = 0.5 \text{ A}, I_R = 1 \text{ A}, I_{rr} = 0.25 \text{ A}$	-	9.84	-	nA

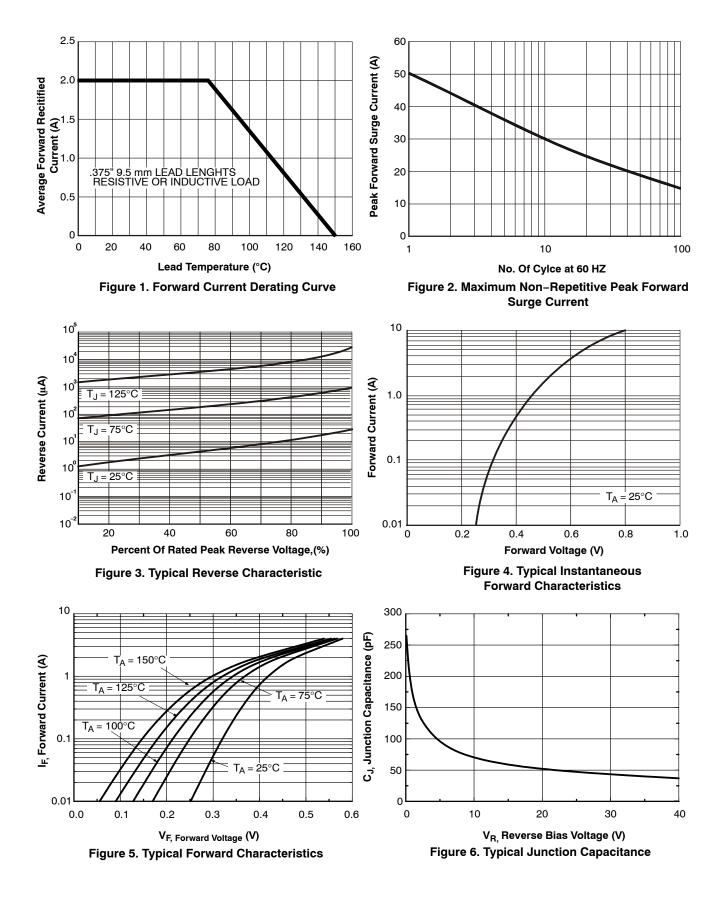
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

2. Pulse Test Pulse Width = 300  $\mu$ s,1% Duty Cycle.

Semiconductor Components Industries, LLC, 2015 August, 2023 – Rev 2

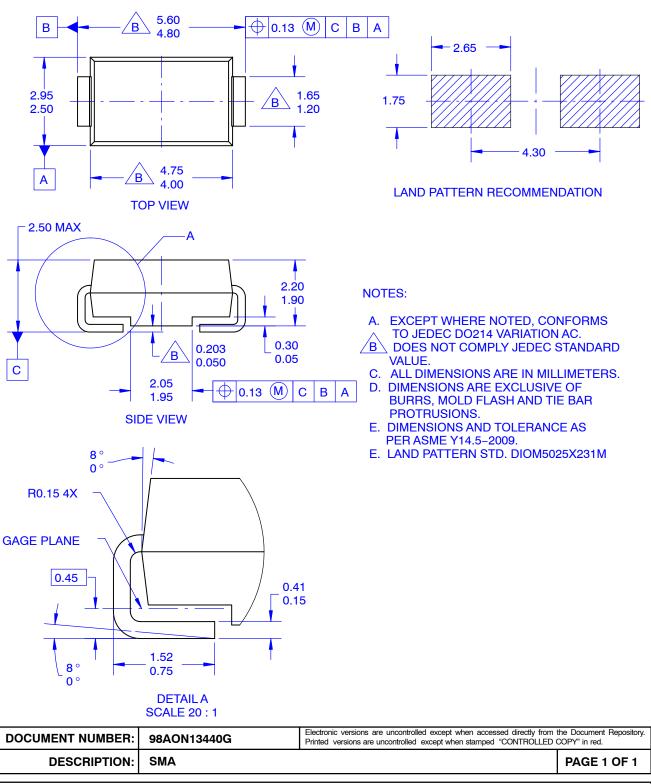
## SSA24

#### **TYPICAL PERFORMANCE CHARACTERISTICS**



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DATE 31 AUG 2016



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