



### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Voltage

40 V

Current

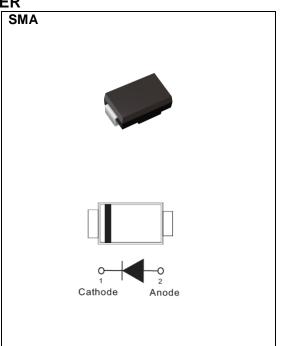
1 A

#### **Features**

- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Green molding compound as per IEC 61249 standard
- Lead free in compliance with EU RoHS 2.0
- AEC-Q101 qualified

#### **Mechanical Data**

- Case: SMA Package
- Polarity: Color Band denotes cathode end
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0024 ounces, 0.068 grams



### **Maximum Ratings and Thermal Characteristics** ( $T_A = 25^{\circ}C$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum RMS Voltage	$V_{RMS}$	28	V
Maximum DC Blocking Voltage	$V_{DC}$	40	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1	А
Peak Forward Surge Current:8.3 ms single half sine-wave superimposed on rated load per diode	I <sub>FSM</sub>	30	А
Typical Junction Capacitance  Measured at 1 MHz And Applied $V_R = 4V$	CJ	70	pF
Typical Thermal Resistance per diode	$R_{\theta JA}^{(1)}$ $R_{\theta JA}^{(2)}$ $R_{\theta JL}^{(2)}$	150 88 28	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

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# **Electrical Characteristics** (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Instantaneous forward voltage	V <sub>F</sub>	$I_F = 0.5 \text{ A}, T_J = 25 ^{\circ}\text{C}$	-	0.41	ı	V
		$I_F = 1 \text{ A}, T_J = 25 ^{\circ}\text{C}$	-	-	0.5	
		$I_F = 0.5 \text{ A}, T_J = 125 ^{\circ}\text{C}$	-	0.32	ı	
		$I_F = 1 \text{ A}, T_J = 125 ^{\circ}\text{C}$	-	0.42	1	
Reverse current	I <sub>R</sub> <sup>(3)</sup>	$V_R = 32 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	3.8	-	- uA
		$V_R = 40 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	-	200	
		V <sub>R</sub> = 40 V, T <sub>J</sub> = 100 °C	-	-	6	mA

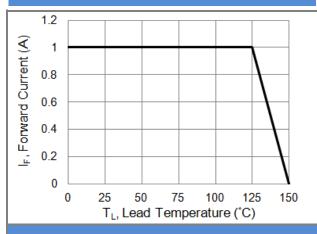
#### NOTES:

- 1. Mounted on a FR4 PCB, single-sided copper, mini pad
- 2. Mounted on a FR4 PCB, single-sided copper, with 100 cm<sup>2</sup> copper pad area
- 3. Short duration pulse test used to minimize self-heating effect

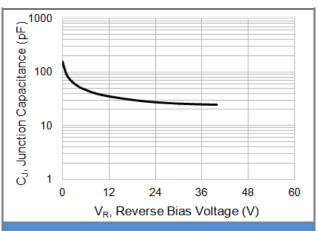




#### **TYPICAL CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

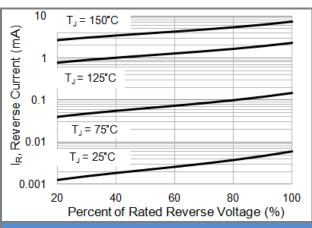


Fig.3 Typical Reverse Characteristics

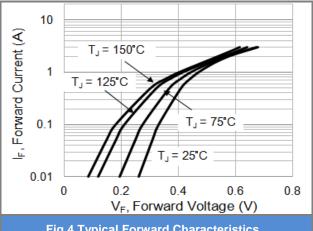


Fig.4 Typical Forward Characteristics

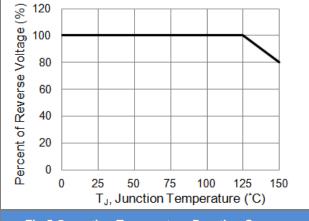


Fig.5 Operating Temperature Derating Curve

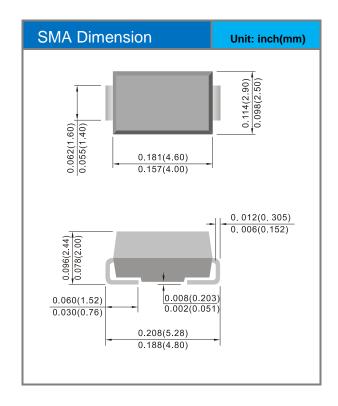


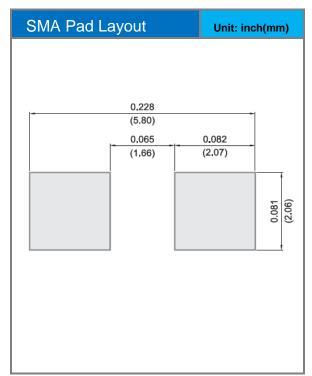


### **Part No Packing Code Version**

Part No Packing Code	Package Type	Packing Type	Marking	Version
SS14-AU_R1_000A1	SMA	1.8K pcs / 7" reel	SS14	Halogen free

### **Packaging Information & Mounting Pad Layout**





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