



**THE DATASHEET OF  
BR36-AU\_R1\_000A1**



# BR36-AU

## Mini Surface Mount Schottky Barrier Rectifier

**Voltage**

**60 V**

**Current**

**3 A**

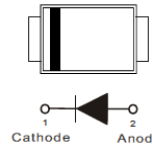
### Features

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

### Mechanical Data

- Case : SMB Package
- Polarity : Color Band denotes cathode end
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.092 grams

### SMB



### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	60	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	3	A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load per diode	I <sub>FSM</sub>	80	A
Typical Junction Capacitance Measured at 1 MHz And Applied V <sub>R</sub> = 4V	C <sub>J</sub>	125	pF
Typical Thermal Resistance per diode	(Note 1) R <sub>θJA</sub>	135	°C/W
	(Note 2) R <sub>θJC</sub>	18	
	(Note 2) R <sub>θJL</sub>	23	
Operating Junction Temperature Range	T <sub>J</sub>	-65 to +175	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +175	°C

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## Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Instantaneous forward voltage	$V_F$	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.47	-	V
		$I_F = 3\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.74	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.4	-	
		$I_F = 3\text{ A}, T_J = 125^\circ\text{C}$	-	0.57	-	
Reverse current	$I_R$	$V_R = 48\text{ V}, T_J = 25^\circ\text{C}$	-	1.5	-	uA
		$V_R = 60\text{ V}, T_J = 25^\circ\text{C}$	-	-	50	mA
		$V_R = 60\text{ V}, T_J = 125^\circ\text{C}$	-	-	20	

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, standard footprint.
2. Mounted on a FR4 PCB, single-sided copper, with 100 cm<sup>2</sup> copper pad area.

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## TYPICAL CHARACTERISTIC CURVES

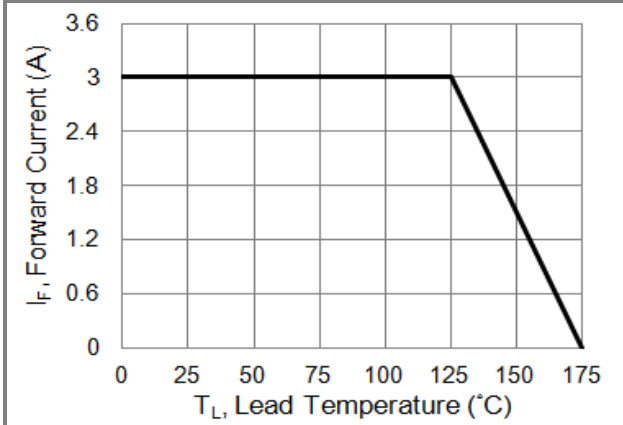


Fig.1 Forward Current Derating Curve

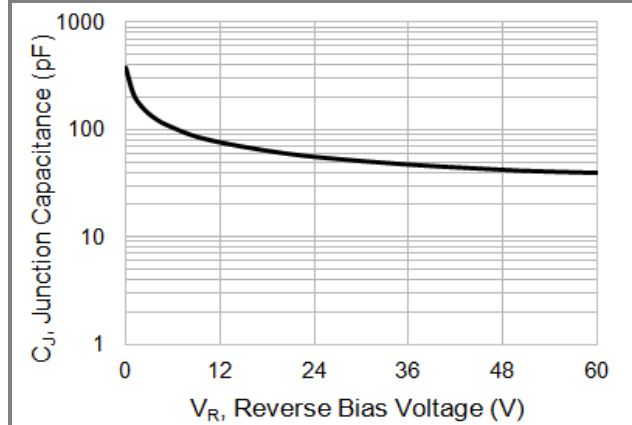


Fig.2 Typical Junction Capacitance

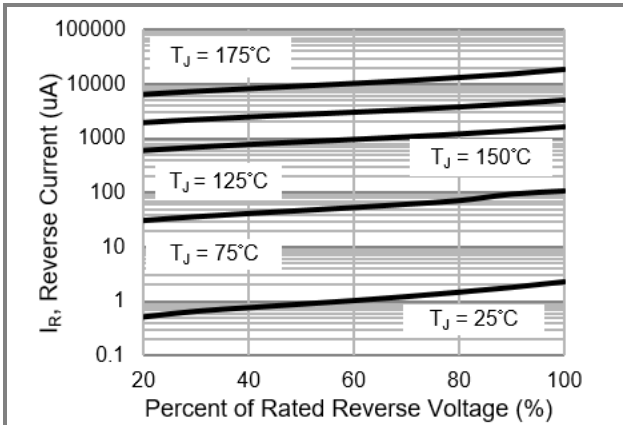


Fig.3 Typical Reverse Characteristics

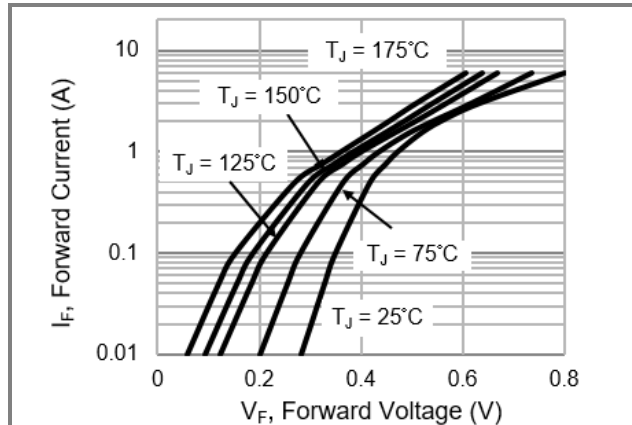


Fig.4 Typical Forward Characteristics

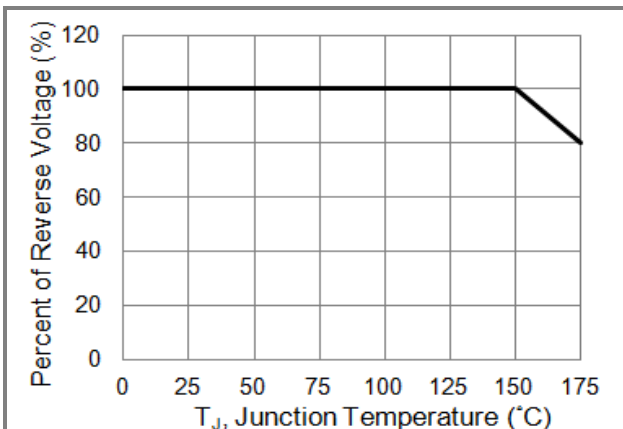


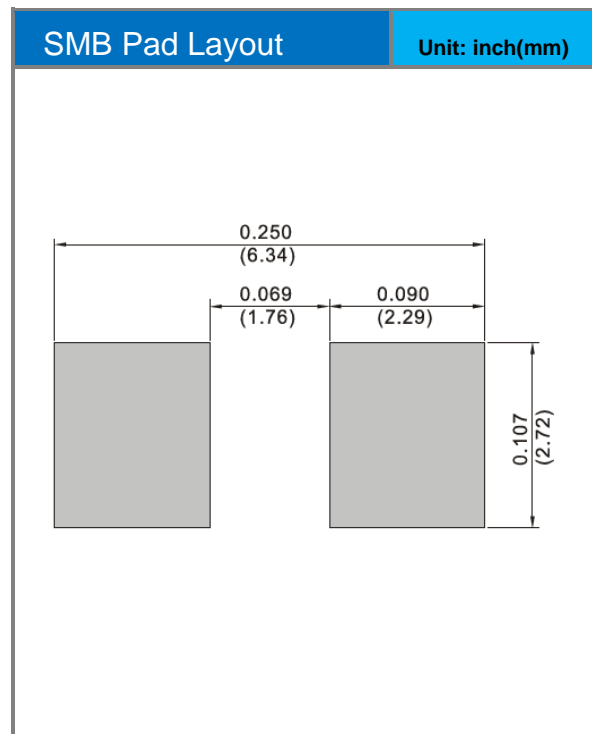
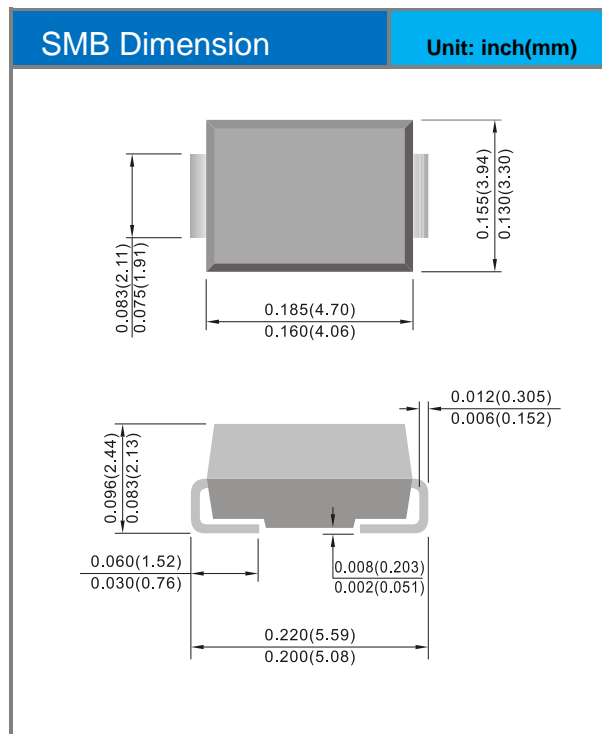
Fig.5 Operating Temperature Derating Curve

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## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BR36-AU	SMB	3K pcs / 13" reel	BR36

## Packaging Information & Mounting Pad Layout



## BR36-AU


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