



SCHOTTKY BARRIER RECTIFIER

Voltage 40 V Current 2 A

Features

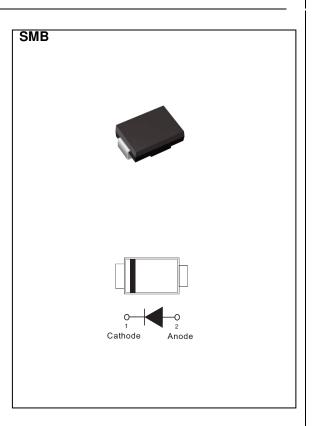
- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

• Case: SMB Package

• Terminals: Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.0032 ounces, 0.092 grams



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

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive 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 Current	I _{F(AV)}	2	Α
Peak Forward Surge Current: 8.3 ms Single Half Sine- Wave Superimposed On Rated Load	I _{FSM}	50	Α
Typical Junction Capacitance Measured at 1 MHZ And Applied V _R = 4 V	CJ	100	pF
Typical Thermal Resistance	R _{θJA} (1) R _{θJC} (1)	135 18	°C/W
Operating Junction Temperature Range	TJ	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C





Electrical Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V _F	I _F = 0.5 A, T _J = 25 °C	-	0.45	-	V
		$I_F = 2.0 \text{ A}, T_J = 25 ^{\circ}\text{C}$	-	-	0.7	
		I _F = 0.5 A, T _J = 125 °C	-	0.33	-	
		I _F = 2.0 A, T _J = 125 °C	-	0.49	-	
Reverse Current	I _R ⁽²⁾	$V_R = 32 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	0.34	-	uA
		$V_R = 40 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	-	50	
		$V_R = 40 \text{ V}, T_J = 125 ^{\circ}\text{C}$	-	0.7	-	mA

NOTES:

- 1. Mounted on a FR4 PCB, single-sided copper, mini pad.
- 2. Mounted on a FR4 PCB, single-sided copper, with 100 cm² copper pad area
- 3. Short duration pulse test used to minimize self-heating effect.





TYPICAL CHARACTERISTIC CURVES

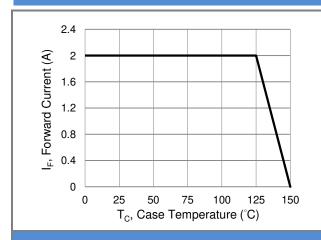


Fig.1 Forward Current Derating Curve

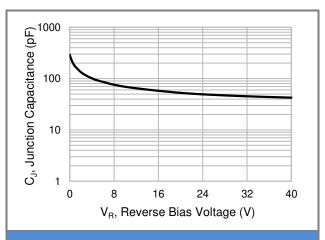


Fig.2 Typical Junction Capacitance

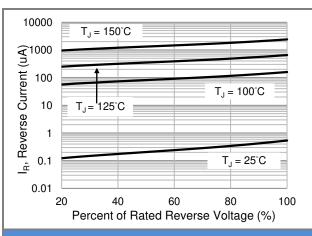


Fig.3 Typical Reverse Characteristics

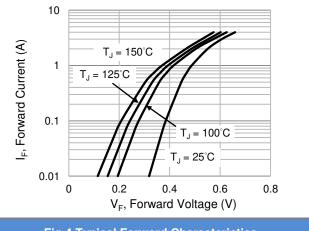


Fig.4 Typical Forward Characteristics

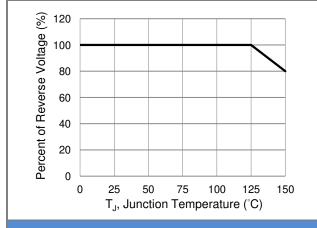


Fig.5 Operating Temperature Derating Curve

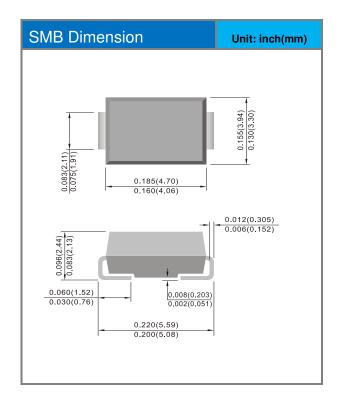


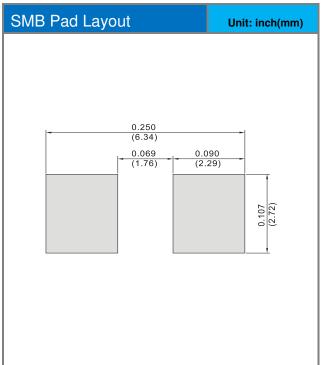


Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
MB24-AU_R2_000A1	SMB	3K pcs / 13" reel	MB24	Halogen free

Packaging Information & Mounting Pad Layout









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