

MB210-AU

Surface Mount Schottky Barrier Rectifier

Voltage

100 V

Current

2 A

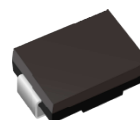
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Low power loss, high efficiency
- High surge capacity
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

Mechanical Data

- Case : JEDEC DO-214AA molded plastic
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Standard packaging : 12mm tape (EIA-481)
- Approx. Weight : 0.0032 ounces, 0.092 grams

SMB



Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	100	V
Maximum Rms Voltage	V _{RMS}	70	V
Maximum Dc Blocking Voltage	V _{DC}	100	V
Maximum Average Forward Current	I _{F(AV)}	2	A
Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I _{FSM}	50	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V _R = 4 V	C _J	75	pF
Typical Thermal Resistance (Note 3) (Note 3) (Note 2)	R _{θJA}	135	°C/W
	R _{θJC}	18	
	R _{θJL}	12	
Operating Junction Temperature Range	T _J	-55~175	°C
Storage Temperature Range	T _{STG}	-55~175	°C



MB210-AU

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage ^(Note 1)	V_F	$I_F = 0.5\text{ A}, T_J = 25^\circ\text{C}$	-	0.6	-	V
		$I_F = 2\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.8	
		$I_F = 0.5\text{ A}, T_J = 125^\circ\text{C}$	-	0.49	-	
		$I_F = 2\text{ A}, T_J = 125^\circ\text{C}$	-	0.62	-	
Reverse Current ^(Note 4)	I_R	$V_R = 80\text{ V}, T_J = 25^\circ\text{C}$	-	0.1	-	uA
		$V_R = 100\text{ V}, T_J = 25^\circ\text{C}$	-	-	50	
		$V_R = 100\text{ V}, T_J = 100^\circ\text{C}$	-	-	20	mA

NOTES:

1. Pulse Test with $PW = 300\mu\text{sec}$, 1% Duty Cycle.
2. Mounted on P.C. Board with 8mm^2 (0.013mm thick) copper pad areas.
3. Mounted on a FR4 PCB, single-sided copper, mini pad.
4. Short duration pulse test used to minimize self-heating effect.

MB210-AU

RATING AND CHARACTERISTIC CURVES

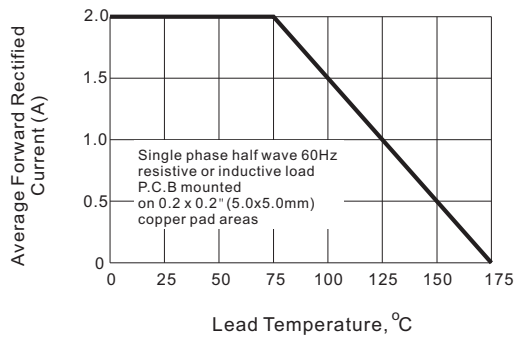


Fig.1-FORWARD CURRENT DERATING CURVE

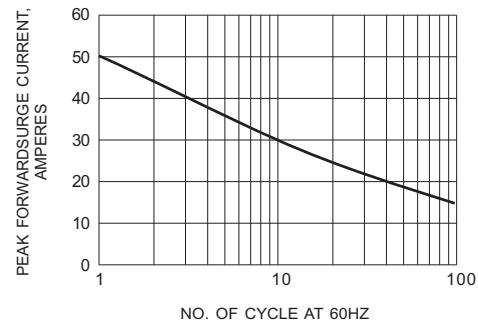


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

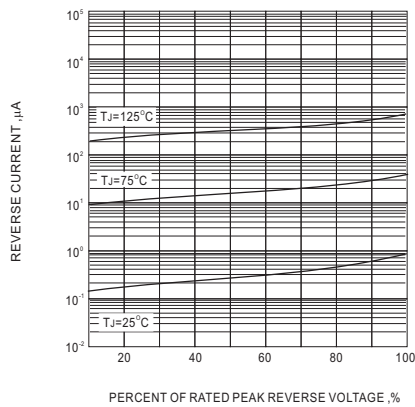


Fig.3-TYPICAL REVERSE CHARACTERISTIC

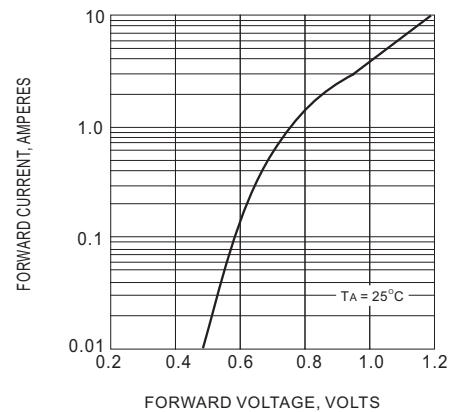


Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

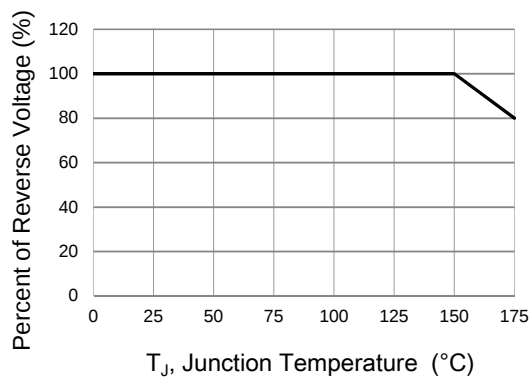


Fig.5-OPERATING TEMPERATURE DERATING CURVE

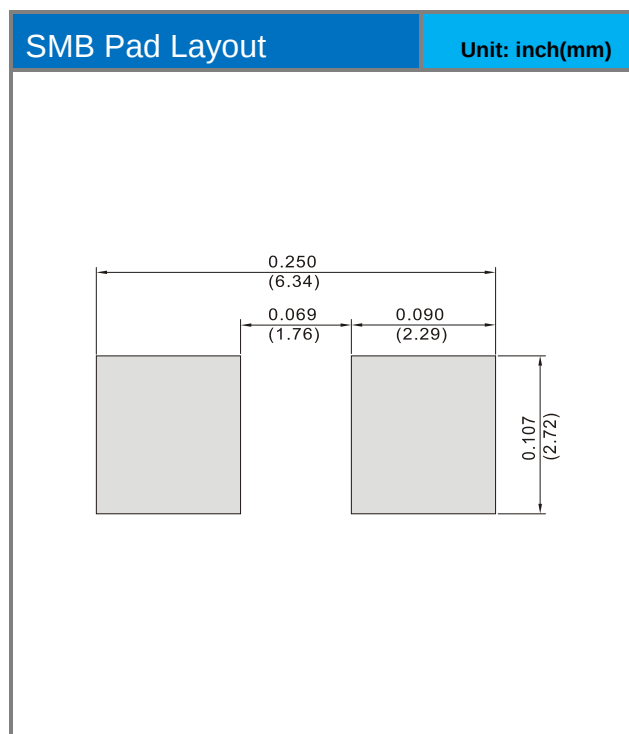
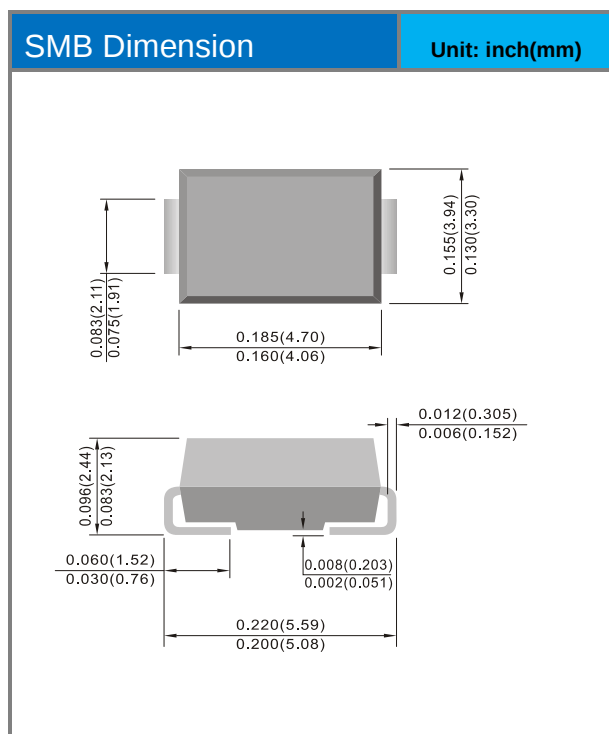


MB210-AU

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
MB210-AU_R1_000A1	SMB	0.8K pcs / 7" reel	MB210	Halogen free

Packaging Information & Mounting Pad Layout





MB210-AU

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