



MBR1060DC-AU

Surface Mount Schottky Barrier Rectifier

Voltage 60 V **Current** 10 A

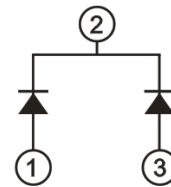
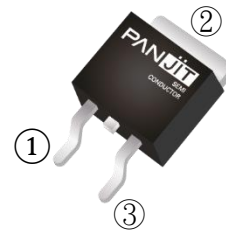
Features

- 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 : TO-263 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 1.38 grams

TO-263



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

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	60	V
Maximum RMS Voltage	V _{RMS}	42	V
Maximum DC Blocking Voltage	V _{DC}	60	V
Maximum Average Forward Current	I _{F(AV)}	per device	20
		per diode	10
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load Per Diode	I _{FSM}	150	A
Typical Junction Capacitance Measured at 1 MHz And Applied V _R = 4 V	C _J	186	pF
Typical Thermal Resistance	(Note 1) R _{θJA}	52	°C/W
	(Note 2) R _{θJC}	6.5	
	(Note 2) R _{θJL}	4	
Operating Junction Temperature Range	T _J	-55~175	°C
Storage Temperature Range	T _{STG}	-55~175	°C



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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage Per Diode	V_F	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.46	-	V
		$I_F = 3\text{ A}, T_J = 25^\circ\text{C}$	-	0.57	-	
		$I_F = 5\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.75	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.36	-	
		$I_F = 3\text{ A}, T_J = 125^\circ\text{C}$	-	0.51	-	
		$I_F = 5\text{ A}, T_J = 125^\circ\text{C}$	-	0.57	-	
Reverse Current Per Diode	I_R	$V_R = 48\text{ V}, T_J = 25^\circ\text{C}$	-	1	-	μA
		$V_R = 60\text{ V}, T_J = 25^\circ\text{C}$	-	-	50	
		$V_R = 60\text{ V}, T_J = 125^\circ\text{C}$	-	2	-	mA

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, standard footprint.
2. Mounted on a FR4 PCB, single-sided copper, with 100 cm² copper pad area.



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TYPICAL CHARACTERISTIC CURVES

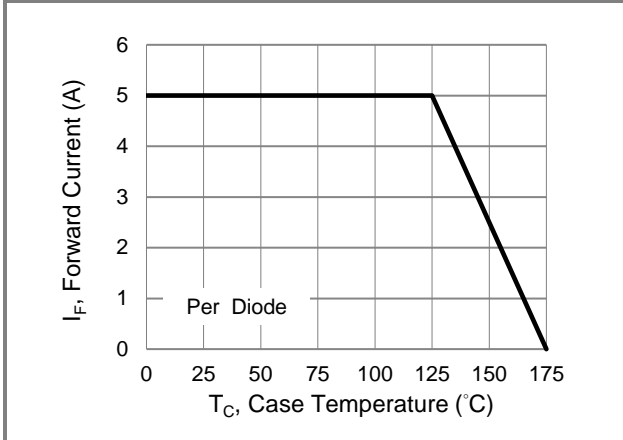


Fig.1 Forward Current Derating Curve

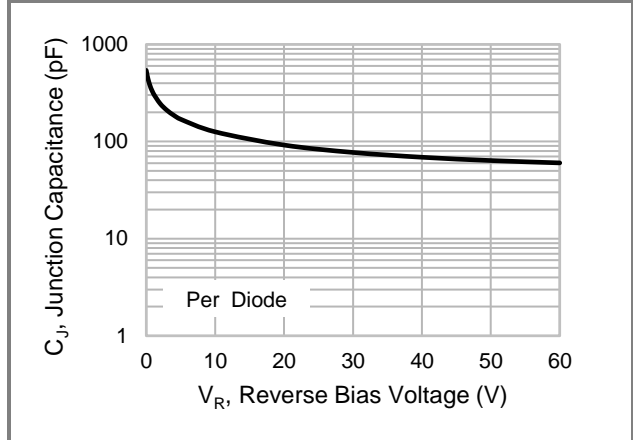


Fig.2 Typical Junction Capacitance

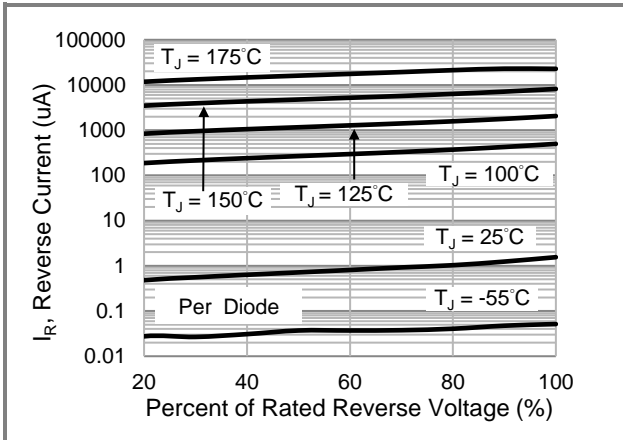


Fig.3 Typical Reverse Characteristics

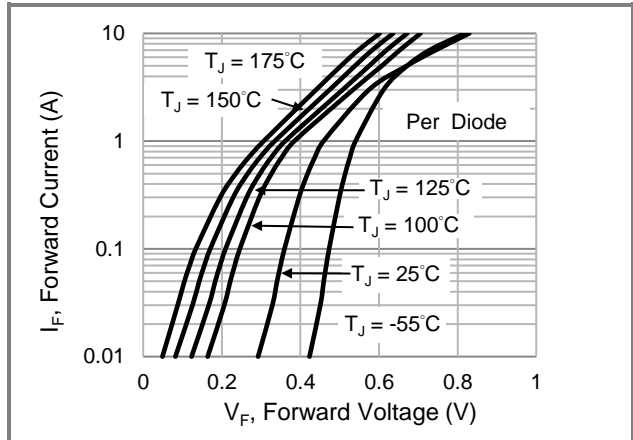


Fig.4 Typical Forward Characteristics

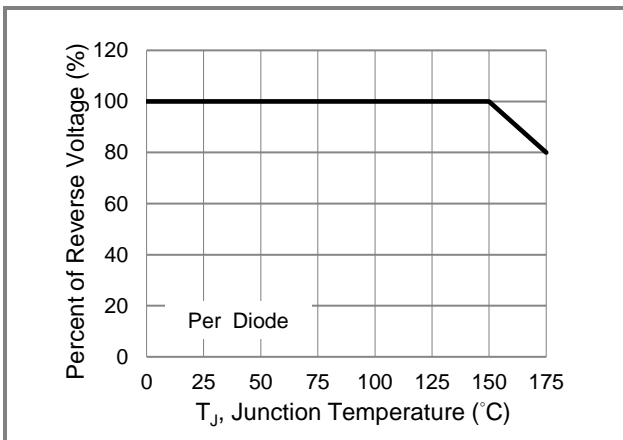


Fig.5 Operating Temperature Derating Curve



MBR1060DC-AU

Part No. Packing Code Version

Part No.	Package Type	Packing Type	Marking	Version
MBR1060DC-AU	TO-263	800 pcs / 13" reel	MBR1060DC	Halogen free RoHS compliant

Packaging Information & Mounting Pad Layout

