



MBR20100YD

SCHOTTKY BARRIER RECTIFIER

Voltage

100 V

Current

20 A

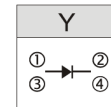
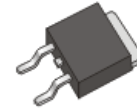
Features

- 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

Mechanical Data

- Case: TO-252AA Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0105 ounces, 0.297 grams

TO-252AA



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)}	20	A
Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I _{FSM}	200	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V _R = 4 V	C _J	360	pF
Typical Thermal Resistance	R _{θJC} ⁽¹⁾	6	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°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	V_F	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.51	-	V
		$I_F = 5\text{ A}, T_J = 25^\circ\text{C}$	-	0.68	-	
		$I_F = 10\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.85	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.39	-	
		$I_F = 5\text{ A}, T_J = 125^\circ\text{C}$	-	0.56	-	
Reverse Current	$I_R^{(2)}$	$V_R = 80\text{ V}, T_J = 25^\circ\text{C}$	-	0.45	-	μA
		$V_R = 100\text{ V}, T_J = 25^\circ\text{C}$	-	-	50	
		$V_R = 100\text{ V}, T_J = 125^\circ\text{C}$	-	1.8	-	mA

NOTES:

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



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TYPICAL CHARACTERISTIC CURVES

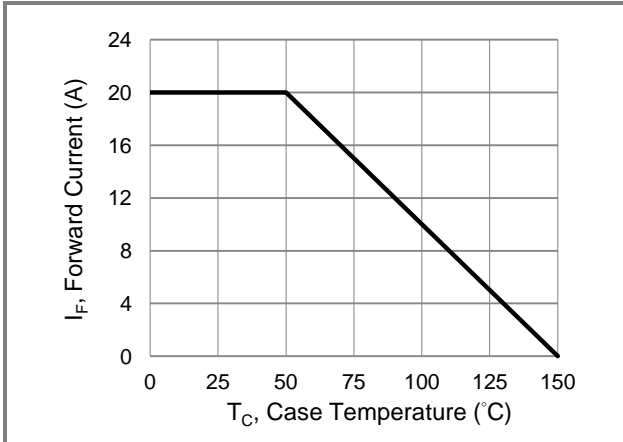


Fig.1 Forward Current Derating Curve

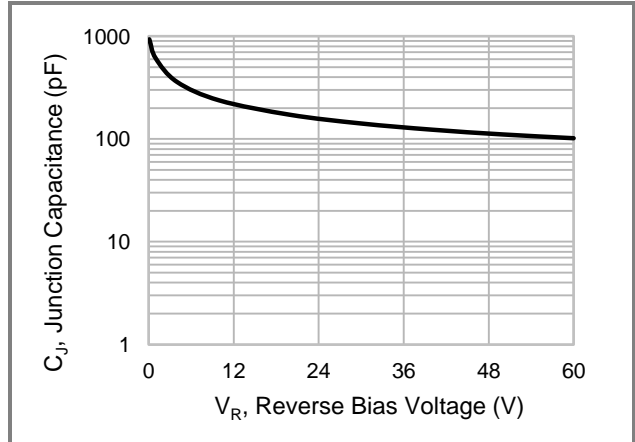


Fig.2 Typical Junction Capacitance

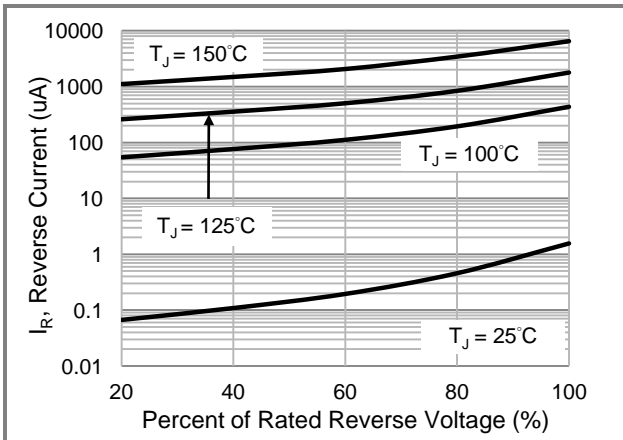


Fig.3 Typical Reverse Characteristics

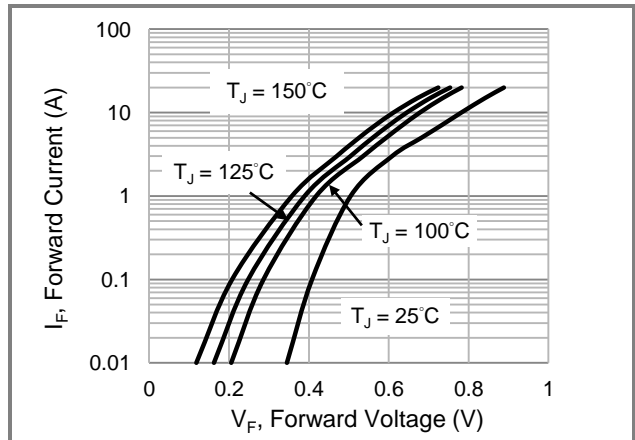


Fig.4 Typical Forward Characteristics

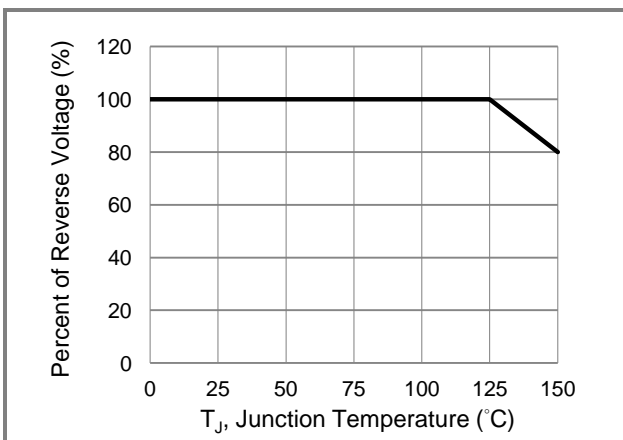


Fig.5 Operating Temperature Derating Curve

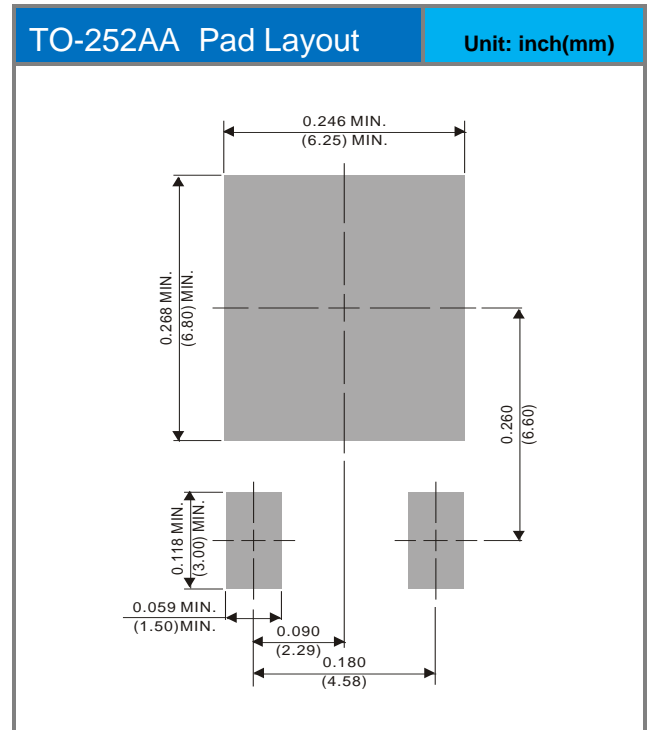
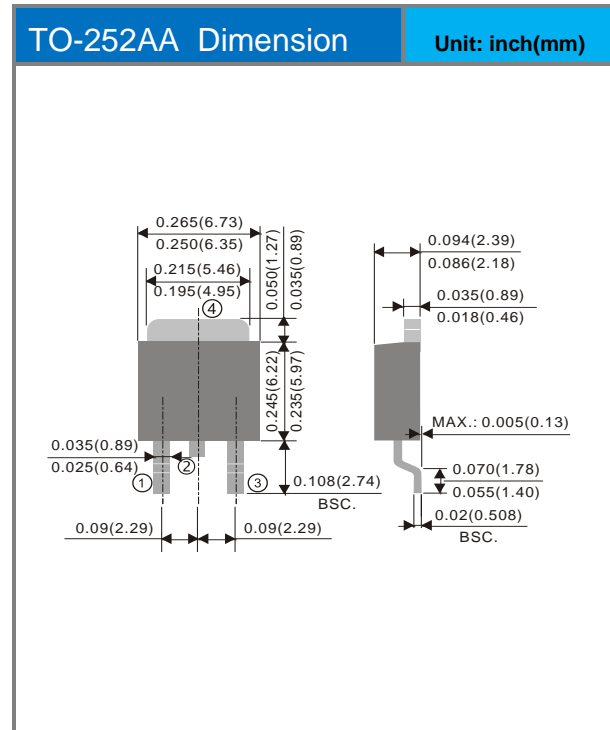


MBR20100YD

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
MBR20100YD_L2_00001	TO-252AA	3K / 13" Reel	MBR20100YD	Halogen free

Packaging Information & Mounting Pad Layout





MBR20100YD

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