

MBR5100YD

Surface Mount Schottky Barrier Rectifier

Voltage

100 V

Current

5 A

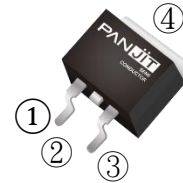
Features

- 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 : 0.3217 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)}	5	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load Per Diode	I _{FSM}	120	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V _R = 4 V	C _J	135	pF
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	V_F	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.66	-	V
		$I_F = 3\text{ A}, T_J = 25^\circ\text{C}$	-	0.75	-	V
		$I_F = 5\text{ A}, T_J = 25^\circ\text{C}$	-	0.78	0.8	V
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.52	-	V
		$I_F = 3\text{ A}, T_J = 125^\circ\text{C}$	-	0.6	-	V
		$I_F = 5\text{ A}, T_J = 125^\circ\text{C}$	-	0.65	-	V
Reverse Current	I_R	$V_R = 80\text{ V}, T_J = 25^\circ\text{C}$	-	19	-	nA
		$V_R = 100\text{ V}, T_J = 25^\circ\text{C}$	-	-	50	uA
		$V_R = 100\text{ V}, T_J = 125^\circ\text{C}$	-	26	-	

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TYPICAL CHARACTERISTIC CURVES

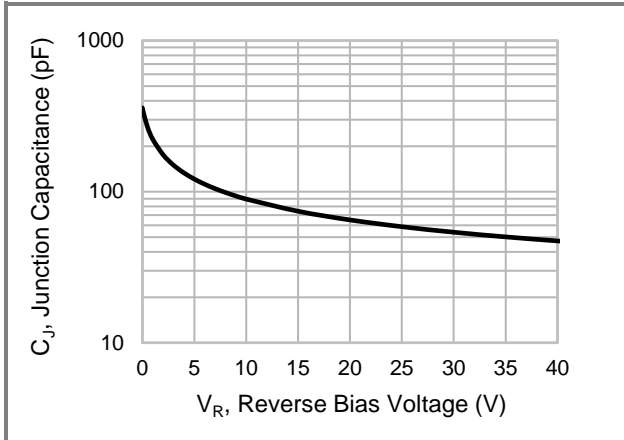


Fig.1 Typical Junction Capacitance

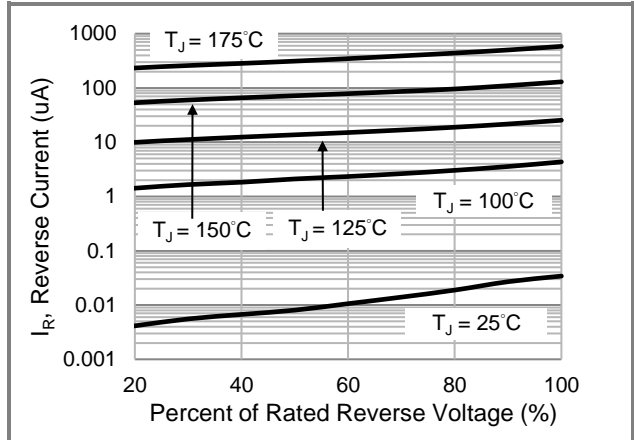


Fig.2 Typical Reverse Characteristics

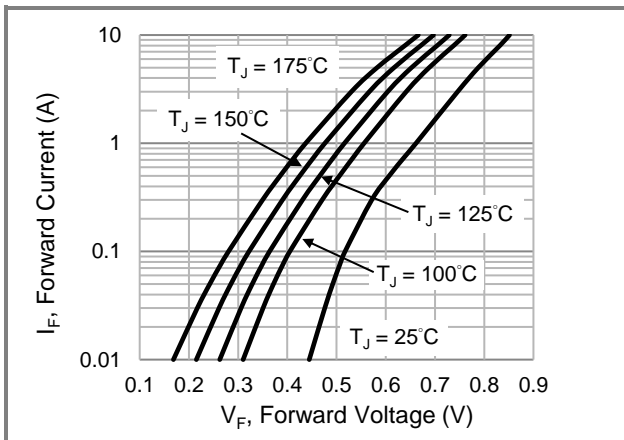


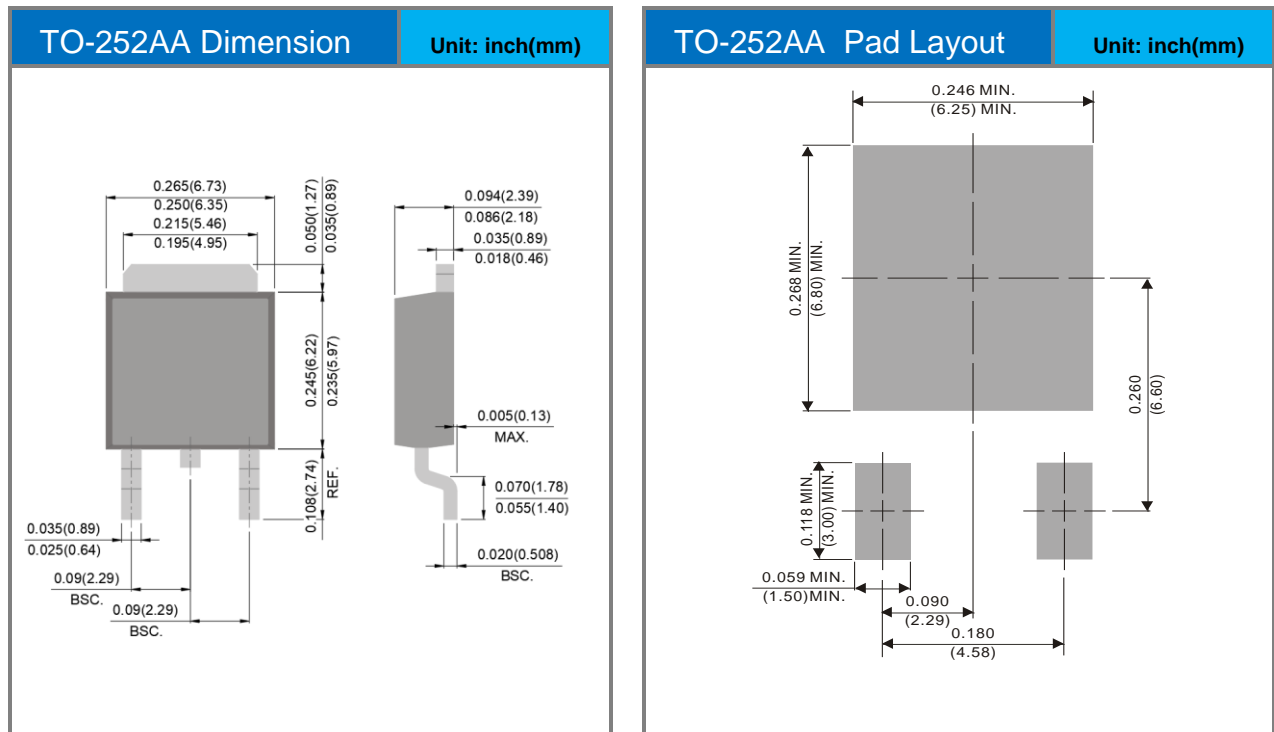
Fig.3 Typical Forward Characteristics

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MBR5100YD	TO-252AA	3K pcs / 13" reel	MBR5100Y

Packaging Information & Mounting Pad Layout



MBR5100YD

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