



# MBR2060YD

## SCHOTTKY BARRIER RECTIFIER

**Voltage**

**60 V**

**Current**

**20 A**

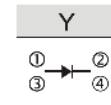
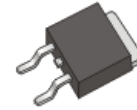
### Features

- 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<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	60	V
Maximum Rms Voltage	V <sub>RMS</sub>	42	V
Maximum Dc Blocking Voltage	V <sub>DC</sub>	60	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	20	A
Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I <sub>FSM</sub>	150	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V <sub>R</sub> = 4 V	C <sub>J</sub>	480	pF
Typical Thermal Resistance	R <sub>θJC</sub> <sup>(1)</sup>	6	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



# MBR2060YD

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.4	-	V
		$I_F = 10\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.63	
		$I_F = 20\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.77	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.27	-	
		$I_F = 5\text{ A}, T_J = 125^\circ\text{C}$	-	0.41	-	
Reverse Current	$I_R^{(2)}$	$V_R = 48\text{ V}, T_J = 25^\circ\text{C}$	-	5.5	-	$\mu\text{A}$
		$V_R = 60\text{ V}, T_J = 25^\circ\text{C}$	-	-	50	
		$V_R = 60\text{ V}, T_J = 125^\circ\text{C}$	-	4	-	mA

**NOTES:**

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



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## TYPICAL CHARACTERISTIC CURVES

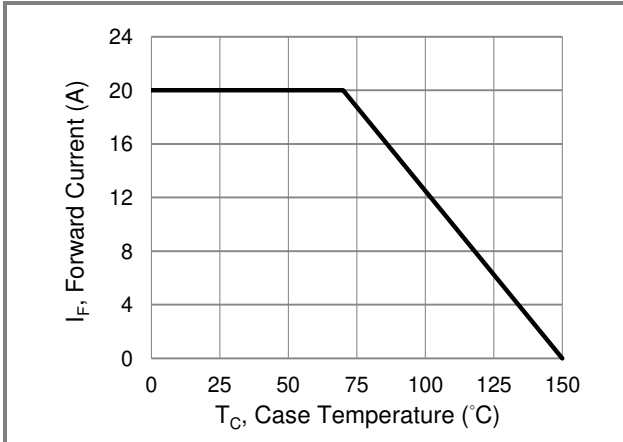


Fig.1 Forward Current Derating Curve

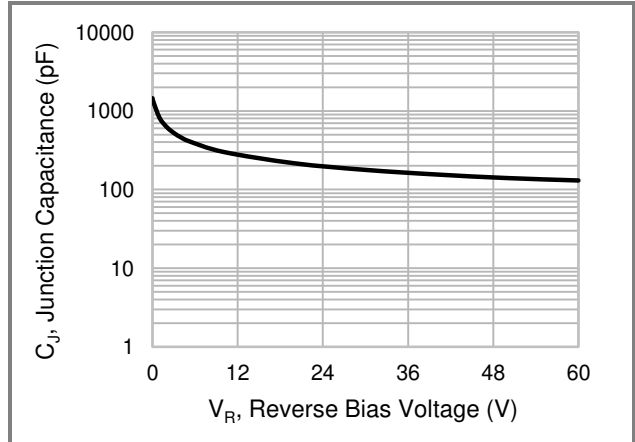


Fig.2 Typical Junction Capacitance

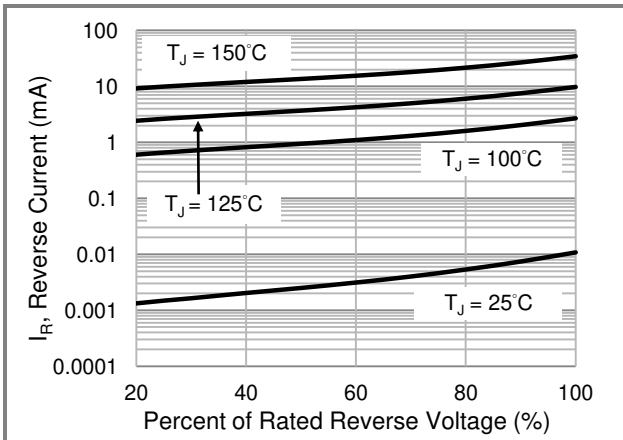


Fig.3 Typical Reverse Characteristics

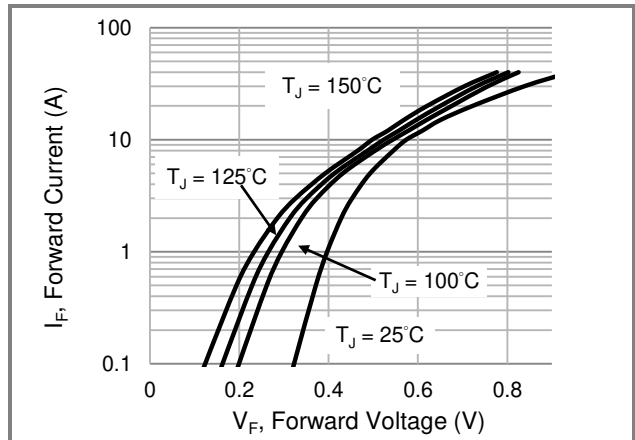


Fig.4 Typical Forward Characteristics

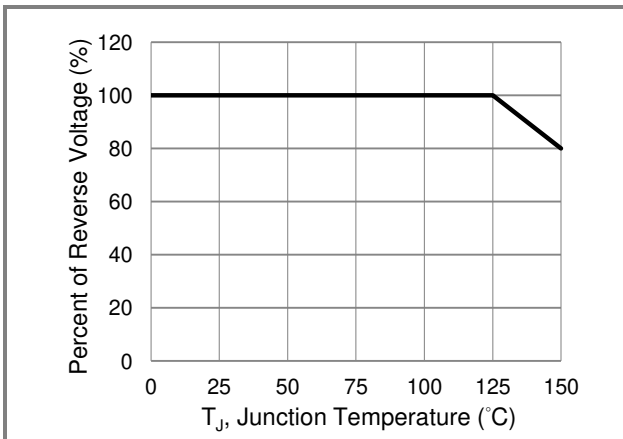


Fig.5 Operating Temperature Derating Curve

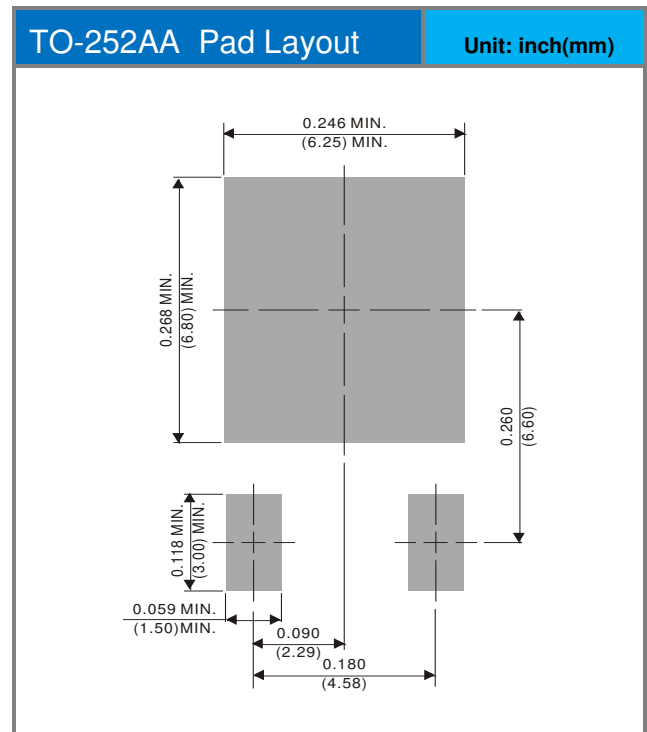
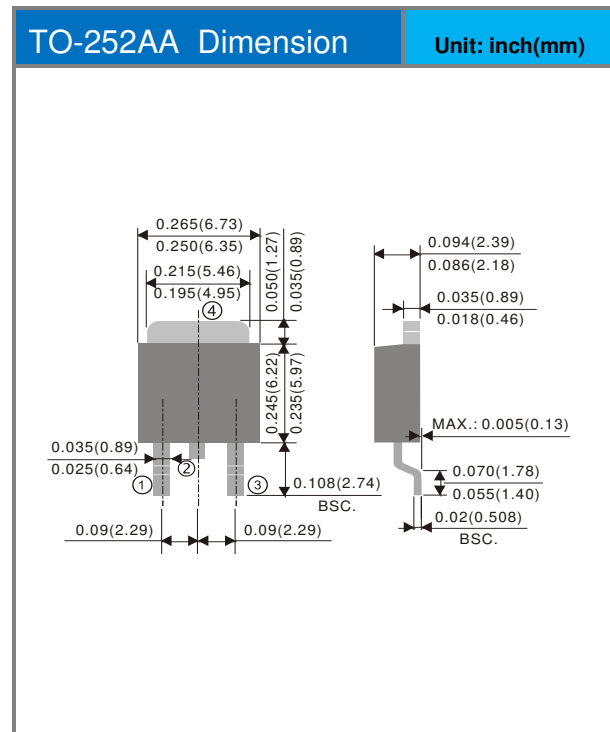


# MBR2060YD

## Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
MBR2060YD_L2_00001	TO-252AA	3K / 13" Reel	MBR2060YD	Halogen free

## Packaging Information & Mounting Pad Layout





## **MBR2060YD**

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