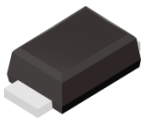
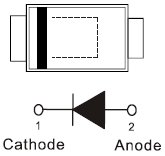
MBR1040HEWS-AU

SCHOTTKY BARRIER RECTIFIER

Voltage	40 V	Current	1 A

SOD-323HE





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
- AEC-Q101 qualified

Mechanical Data

- Case: SOD-323HE Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.005 grams

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

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum Rms Voltage	V_{RMS}	28	V
Maximum Dc Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	22	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V_R = 4 V	C_J	60	pF
Typical Thermal Resistance	$R_{\theta JA}$ (1) $R_{\theta JC}$ (2)	300 50	°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°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 0.5 A, T_J = 25 °C	-	0.47	-	V
		I_F = 1 A, T_J = 25 °C	-	-	0.58	
		I_F = 0.5 A, T_J = 125 °C	-	0.37	-	
		I_F = 1 A, T_J = 125 °C	-	0.45	-	
Reverse Current	I_R (3)	V_R = 32 V, T_J = 25 °C	-	0.6	-	uA
		V_R = 40 V, T_J = 25 °C	-	-	50	
		V_R = 40 V, T_J = 125 °C	-	0.8	-	mA

NOTES:

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

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TYPICAL CHARACTERISTIC CURVES

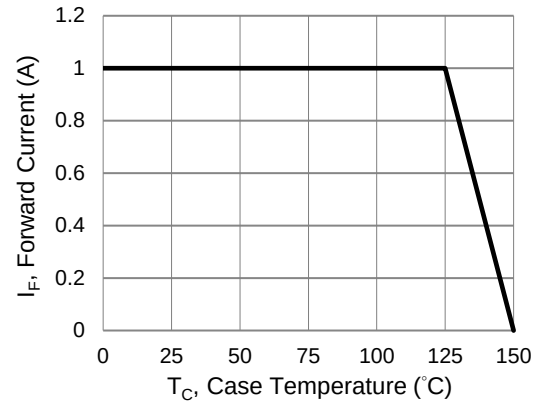

Fig.1 Forward Current Derating Curve

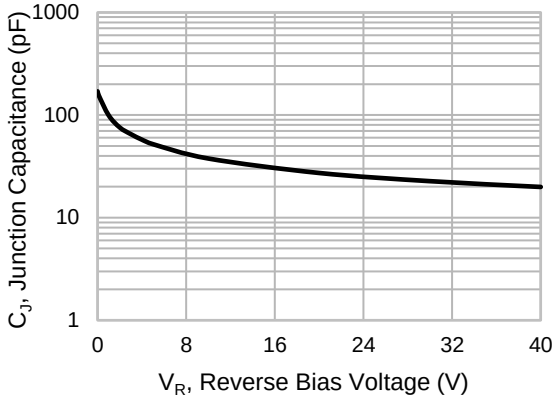

Fig.2 Typical Junction Capacitance

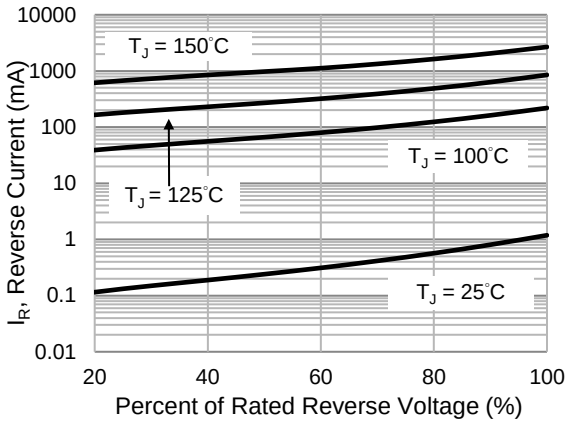

Fig.3 Typical Reverse Characteristics

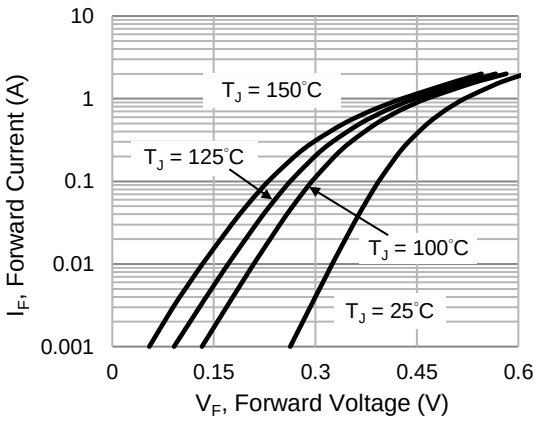

Fig.4 Typical Forward Characteristics

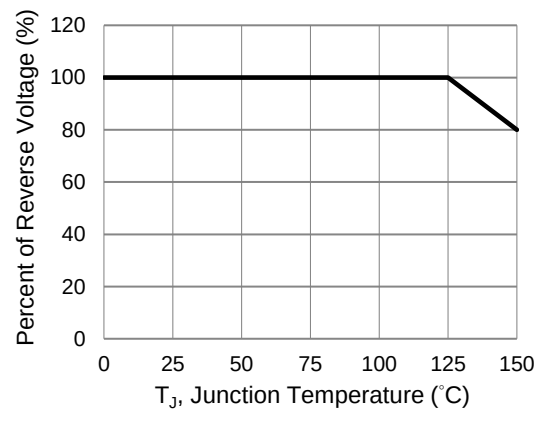

Fig.5 Operating Temperature Derating Curve

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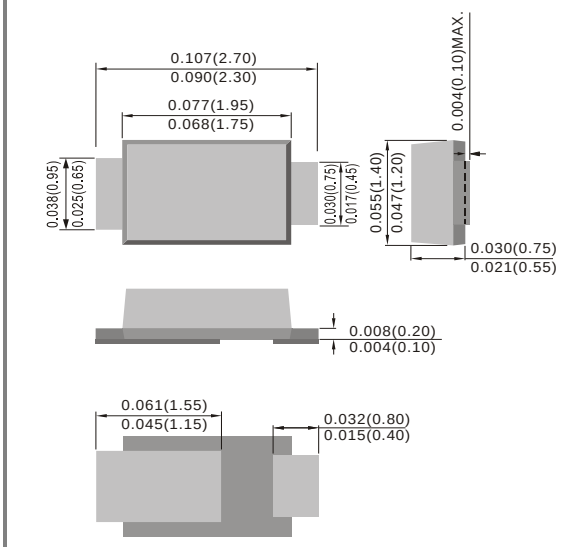
Product and Packing Information

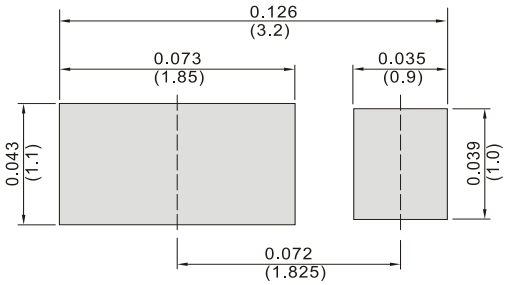
Part No.	Package Type	Packing Type	Marking
MBR1040HEWS-AU	SOD-323HE	5K / 7" Reel	KC

Packaging Information & Mounting Pad Layout

SOD-323HE Dimension — Unit: inch(mm)



SOD-323HE Pad Layout — Unit: inch(mm)



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