



MBR150

DIODE

1.0A SCHOTTKY BARRIER RECTIFIER

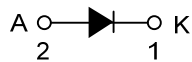
DESCRIPTION

The **MBR150** employs the 1.0A Schottky Barrier principle in a large area metal-to-silicon power diode. , it uses UTC's advanced State-of-the-art geometry features epitaxial construction with oxide passivation and metal overlap contact. Ideally suited for use as rectifiers in low voltage, high frequency inverters, free wheeling diodes, and polarity protection diodes.

FEATURES

- * Low Reverse Current
- * Low Stored Charge, Majority Carrier Conduction
- * Low Power Loss/High Efficiency
- * Highly Stable Oxide Passivated Junction

SYMBOL



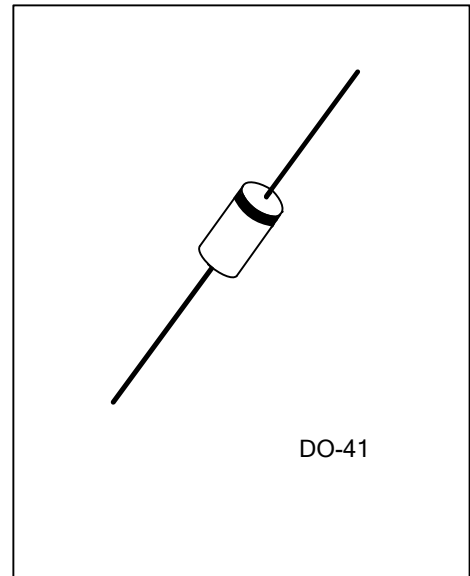
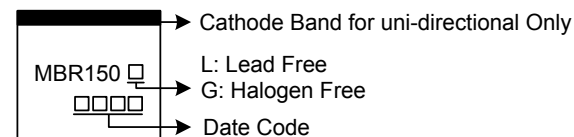
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
MBR150L-Z41-R	MBR150G-Z41-R	DO-41	K	A	Tape Reel
MBR150L-Z41-B	MBR150G-Z41-B	DO-41	K	A	Tape Box

Note: Pin Assignment: A: Anode K: Cathode

	<p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) B: Tape Box, R: Tape Reel</p> <p>(2) Z41: DO-41</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATING ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Working Peak Reverse Voltage	V_{RWM}	50	V
Repetitive Peak Reverse Voltage	V_{RRM}	50	V
Maximum RMS Reverse Voltage	V_{RMS}	35	V
DC Blocking Voltage	V_R	50	V
Average Rectified Output Current ($T_A=70^{\circ}\text{C}$)	I_O	1.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	25	A
Junction Temperature	T_J	-55 ~ +150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	80	$^{\circ}\text{C/W}$

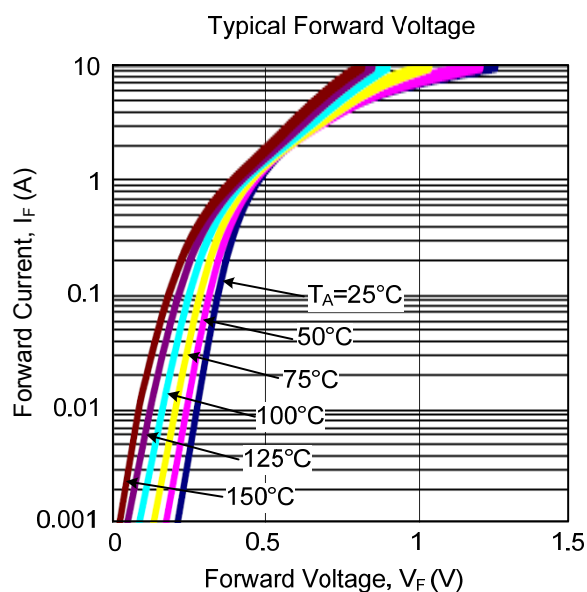
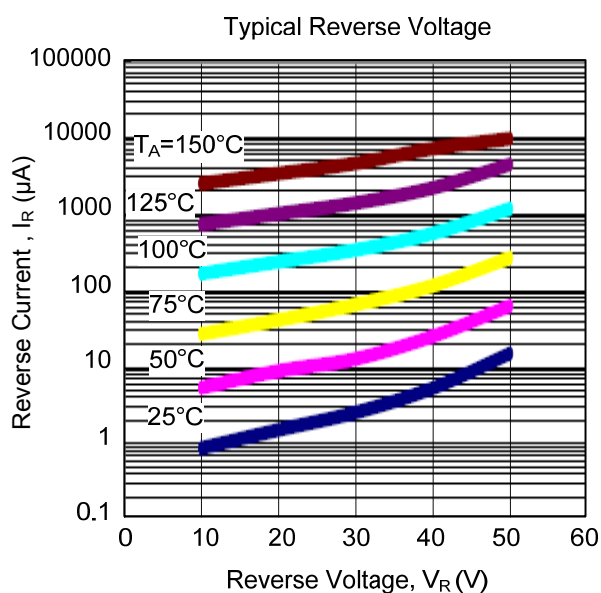
Note: FR-4 PCB, 2 oz Copper. Minimum recommended pad layout.

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.50\text{mA}$	50			V
Forward Voltage Drop	V_{FM}	$I_F=1.0\text{A}$, $T_C=25^{\circ}\text{C}$			0.75	V
		$I_F=1.0\text{A}$, $T_C=125^{\circ}\text{C}$			0.70	V
Peak Reverse Current at Rated DC Blocking Voltage	I_{RM}	Rated DC Voltage, $T_C=25^{\circ}\text{C}$			50	μA
		Rated DC Voltage, $T_C=125^{\circ}\text{C}$			10	mA

Note: Pulse Test: Pulse width $\leq 300\mu\text{s}$, Duty cycle $\leq 2\%$.

■ TYPICAL CHARACTERISTICS



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