



MBR1100

Preliminary

DIODE

1.0A, 100V SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

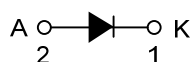
The UTC **MBR1100** is a 1.0A schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, low reverse current and high efficiency, etc.

The UTC **MBR1100** is suitable for free wheeling diodes, high frequency inverters, low voltage and polarity protection diodes.

FEATURES

- * Low forward voltage drop
- * Low reverse current
- * High surge capacity
- * Low power loss
- * High efficiency

SYMBOL

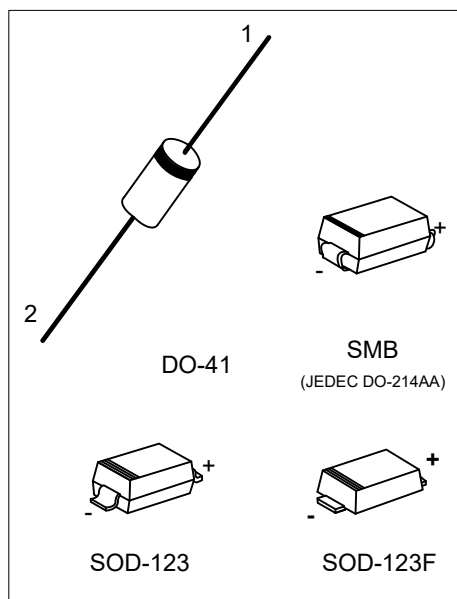


ORDERING INFORMATION

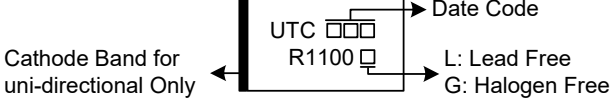
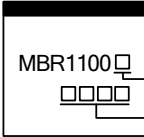
Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
MBR1100L-CA2-R	MBR1100G-CA2-R	SOD-123	K	A	Tape Reel
MBR1100L-CA2F-R	MBR1100G-CA2F-R	SOD-123F	K	A	Tape Reel
MBR1100L-SMB-R	MBR1100G-SMB-R	SMB	K	A	Tape Reel
MBR1100L-Z41-B	MBR1100G-Z41-B	DO-41	K	A	Tape Box
MBR1100L-Z41-R	MBR1100G-Z41-R	DO-41	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

	(1) R: Tape Reel, B: Tape Box (2) CA2: SOD-123, CA2F: SOD-123F, SMB: SMB, Z41: DO-41 (3) G: Halogen Free and Lead Free, L: Lead Free
--	---



■ MARKING

PACKAGE	MARKING
SOD-123 SOD-123F	 RB0 L: Lead Free G: Halogen Free
SMB	 Cathode Band for uni-directional Only UTC R1100 Date Code L: Lead Free G: Halogen Free
DO-41	 MBR1100 Cathode Band for uni-directional Only L: Lead Free G: Halogen Free Date Code

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V_R	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Forward Rectified Output Current	I_O	1.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave	I_{FSM}	8	A
Voltage Rate of Change (Rated V_R)	dv/dt	10	V/ns
Operating Junction Temperature (Note 1)	T_J	-65 ~ +150	°C
Storage Temperature (Note 1)	T_{STG}	-65 ~ +150	°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
Typical Thermal Resistance	θ_{JL}	26 (Note)	°C/W
		22 (Note)	°C/W
	θ_{JA}	50	°C/W

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

■ ELECTRICAL CHARACTERISTICS (Note 2) ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage (Note 2)	V_F	$I_F=1\text{A}$, $T_L=25^\circ\text{C}$			0.83	V
		$I_F=1\text{A}$, $T_L=100^\circ\text{C}$			0.73	V
Instantaneous Reverse Current @ Rated dc Voltage (Note 2)	I_R	$T_L=25^\circ\text{C}$			50	μA
		$T_L=100^\circ\text{C}$			5.0	mA

Notes: 1. The heat generated must be less than the thermal conductivity from Junction to Ambient: $P_D/T_J < 1/\theta_{JA}$.
2. Pulse Test: Pulse Width=300 μs , Duty Cycles $\leq 2.0\%$.

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.