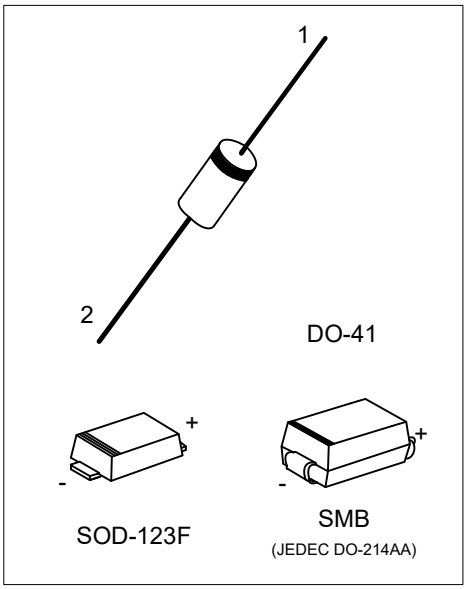
1.0A, 100V SCHOTTKY BARRIER RECTIFIER



■ DESCRIPTION

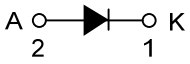
The UTC **MBR1100** is a 1.0A schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop, low reverse current and high efficiency, etc.

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

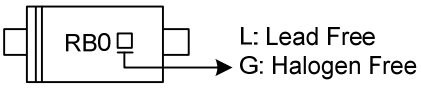
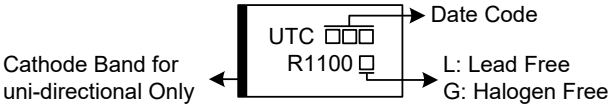
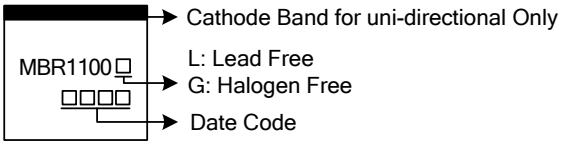
Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
MBR1100L-CA2F-R	MBR1100G-CA2F-R	SOD-123F	K	A	Tape Reel
MBR1100L-SMB-R	MBR1100G-SMB-R	SMB	K	A	Tape Reel
MBR1100L-Z41-B	MBR1100G-Z41-B	DO-41	K	A	Tape Box
MBR1100L-Z41-R	MBR1100G-Z41-R	DO-41	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

MBR1100G-CA2F-R
(1)Packing Type
(2)Package Type
(3)Green Package

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

■ MARKING

PACKAGE	MARKING
SOD-123F	
SMB	
DO-41	

■ 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	SOD-123F	θ_{JL}	26 (Note)	°C/W
	SMB		22 (Note)	°C/W
	DO-41	θ_{JA}	50	°C/W

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

■ ELECTRICAL CHARACTERISTICS (Note 2) (T_A=25°C, unless otherwise noted.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage (Note 2)	V_F	I_F=1A, T_L=25°C			0.83	V
		I_F=1A, T_L=100°C			0.73	V
Instantaneous Reverse Current @ Rated dc Voltage (Note 2)	I_R	T_L=25°C			50	μA
		T_L=100°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=300μs, Duty Cycle≤2.0%.