



MBR240

DIODE

2.0A SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

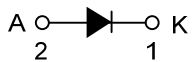
The UTC **MBR240** is a 2.0A schottky barrier rectifier, it uses UTC's advanced technology to provide the customers with high surge capability, high efficiency, high current capability, low power loss and low forward voltage drop, etc.

The UTC **MBR240** is suitable for free wheeling and polarity protection, etc.

FEATURES

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

SYMBOL



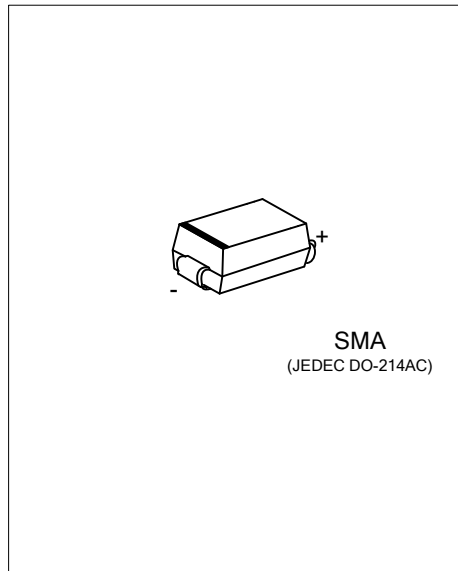
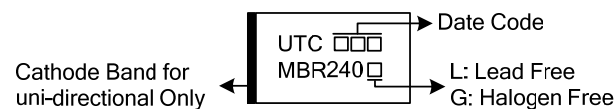
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
MBR240L-SMA-R	MBR240G-SMA-R	SMA	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR240G-SMA-R</p>	<p>(1) R: Tape Reel (2) SMA: SMA (3) G: Halogen Free and Lead Free, L: Lead Free</p>
----------------------	--

MARKING



■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
Working Peak Reverse Voltage	V _{RWM}	40	V
DC Blocking Voltage	V _R	40	V
RMS Reverse Voltage	V _{R(RMS)}	28	V
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% Duty Cycle	I _O	2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave	I _{FSM}	40	A
Typical Junction Capacitance (Note 2)	C _J	111	pF
Junction Temperature	T _J	-65 ~ +150	°C
Storage Temperature	T _{STG}	-65 ~ +150	°C

Notes: 1. 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.

2. Applied V_R = 4.0V and f = 1.0MHz.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ _{JA}	90	°C/W

Note: Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.

■ ELECTRICAL CHARACTERISTICS

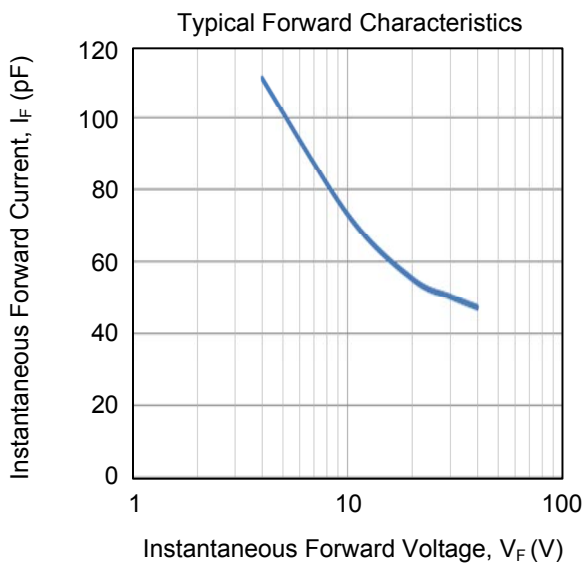
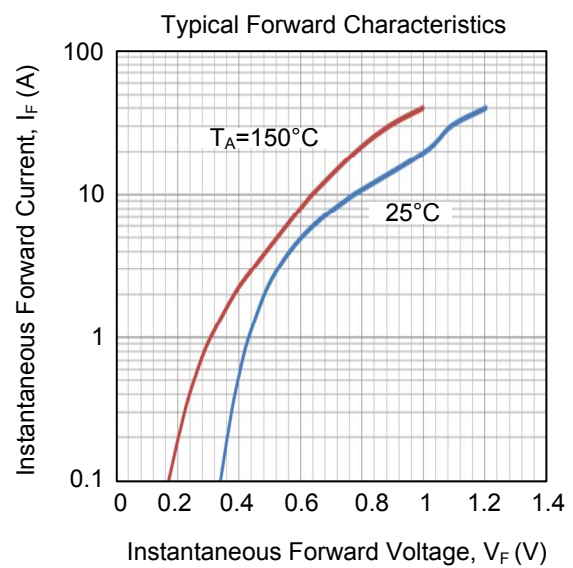
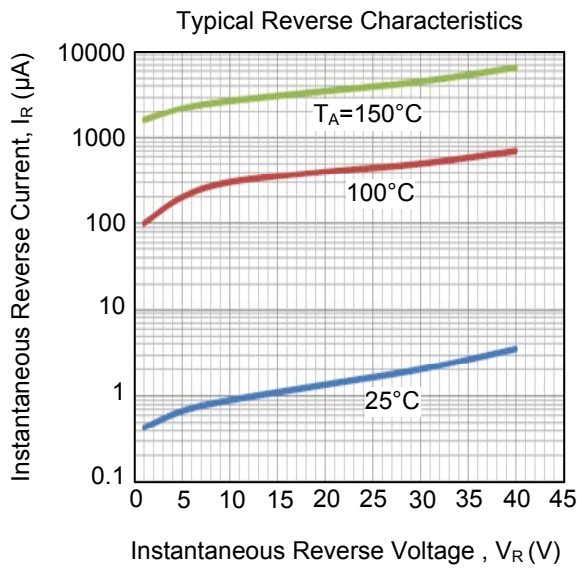
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop (Note 2)	V _F	I _F =2.0A, T _C =25°C			0.70	V
		I _F =2.0A, T _C =125°C			0.65	V
Instantaneous Reverse Current (Note 2)	I _R	Rated DC Voltage, T _C =25°C			500	μA
		Rated DC Voltage, T _C =125°C			20	mA

Notes: 1. 2.0μs Pulse Width, f = 1.0KHz.

2. Pulse Test: Pulse Width=300μs, Duty Cycle≤ 2.0%.

3. Applied V_R = 4.0V and f = 1.0MHz.

■ TYPICAL CHARACTERISTICS



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.