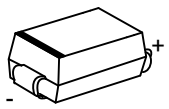
MBR240

DIODE

2.0A SCHOTTKY BARRIER RECTIFIER



SMA
(JEDEC DO-214AC)

■ DESCRIPTION

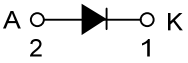
The UTC **MBR240** is a 2.0A schottky barrier rectifier, it uses UTC's advanced technology to provide the customers with high surge capability, high efficiency, high current capability, low power loss and low forward voltage drop, etc.

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



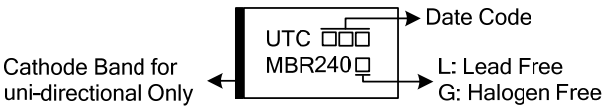
■ ORDERING INFORMATION

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

MBR240G-SMA-R (1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel (2) SMA: SMA (3) G: Halogen Free and Lead Free, L: Lead Free

■ 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