



## MBR10150C

Preliminary

DIODE

### HIGH VOLTAGE POWER SCHOTTKY RECTIFIER

#### DESCRIPTION

The UTC **MBR10150C** is a high voltage dual schottky rectifier, providing the designers with high current capacity and guard-ring for stress protection.

The UTC **MBR10150C** is suitable for medium voltage operation and high frequency circuits where low switching losses and low noise are required

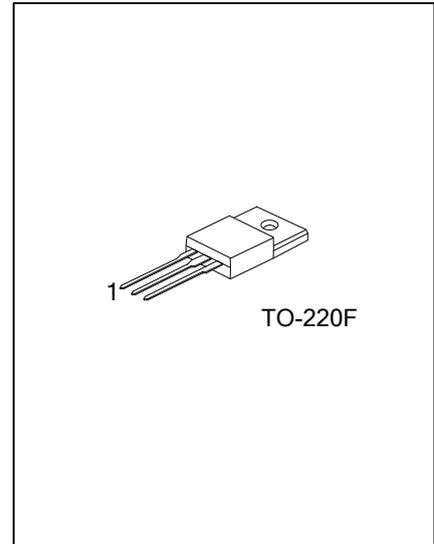
#### FEATURES

- \* High surge capacity
- \* Low Forward Voltage
- \* Guard-ring for stress protection
- \* Pb-Free

#### ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
MBR10150CL-TF3-T	MBR10150CG-TF3-T	TO-220F	Tube

<p>MBR10150CL-TF3-T</p> <p>(1)Packing Type (2)Package Type (3)Lead Free</p>	<p>(1) T: Tube (2) TF3: TO-220F (3) G:Halogen Free, L: Lead Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (Per Diode Leg)

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	$V_R$	150	V
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Working Peak Reverse Voltage	$V_{RWM}$		
Average Rectified Forward Current (Rated $V_R$ ) $T_C=142^{\circ}C$	$I_{F(AV)}$	5	A
Peak Repetitive Forward Current (Rated $V_R$ , Square Wave, 20 kHz) $T_C=142^{\circ}C$	$I_{FRM}$	10	A
Non-Repetitive Peak Surge Current (Surge Applied At Rated Load Conditions Half Wave, Single Phase, 60Hz)	$I_{FSM}$	100	A
Voltage Rate of Change (Rated $V_R$ )	$dv/dt$	10000	V/ $\mu$ s
Operating Junction Temperature (Note 2)	$T_J$	150	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55 ~ 150	$^{\circ}C$

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. The heat generated must be less than the thermal conductivity from Junction-to-Ambient:  $dP_D/dT_J < 1/\theta_{JA}$ .

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	$\theta_{JA}$	60	$^{\circ}C/W$
Junction to Case	$\theta_{JC}$	4.5	

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop (Note 1)	$V_F$	$I_F=5A, T_C=25^{\circ}C$			0.92	V
		$I_F=5A, T_C=125^{\circ}C$			0.82	
Instantaneous Reverse Current (Note 1)	$I_R$	Rated DC Voltage, $T_C=25^{\circ}C$			0.1	mA
		Rated DC Voltage, $T_C=125^{\circ}C$			15.0	

Note: 1. Pulse Test: Pulse Width=300 $\mu$ s, Duty Cycle $\leq$ 2.0%.

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