



MBR30150CL

LOW VF SCHOTTKY RECTIFIER

Voltage	150 V	Current	30 A
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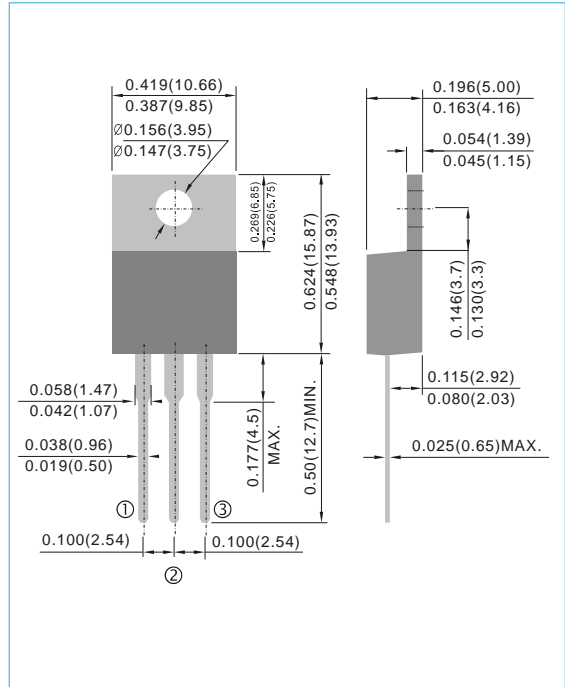
Features

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Lead free in compliance with EU RoHS 2011/65/EU directive

Mechanical Data

- Case: Molded plastic, TO-220AB
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.067 ounces, 1.89 grams
- Marking: Part number

TO-220AB Unit : inch(mm)



Maximum Ratings And Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	150	V
Maximum rms voltage		V_{RMS}	105	V
Maximum dc blocking voltage		V_R	150	V
Maximum average forward rectified current	per diode	$I_{F(AV)}$	15	A
	per device		30	
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode		I_{FSM}	250	A
Typical thermal resistance per diode	(Note 1)	$R_{\theta JC}$	2	$^\circ\text{C/W}$
Operating junction temperature range		T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^\circ\text{C}$

Note : 1. Device mounted on a infinite heatsink , then measured the center of the marking side.



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Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage per diode	V_{BR}	$I_R=0.5\text{mA}$	$T_J=25^\circ\text{C}$	150	-	-	V
Instantaneous forward voltage per diode	V_F	$I_F=1\text{A}$	$T_J=25^\circ\text{C}$	-	0.49	-	V
		$I_F=5\text{A}$		-	0.68	-	
Instantaneous forward voltage per diode	V_F	$I_F=15\text{A}$	$T_J=25^\circ\text{C}$	-	0.79	0.84	V
		$I_F=1\text{A}$		$T_J=125^\circ\text{C}$	-	0.4	
Reverse current per diode	I_R	$V_R=120\text{V}$	$T_J=25^\circ\text{C}$		-	2.6	-
		$V_R=150\text{V}$	$T_J=25^\circ\text{C}$	-	-	60	μA
			$T_J=125^\circ\text{C}$	-	3.1	-	mA

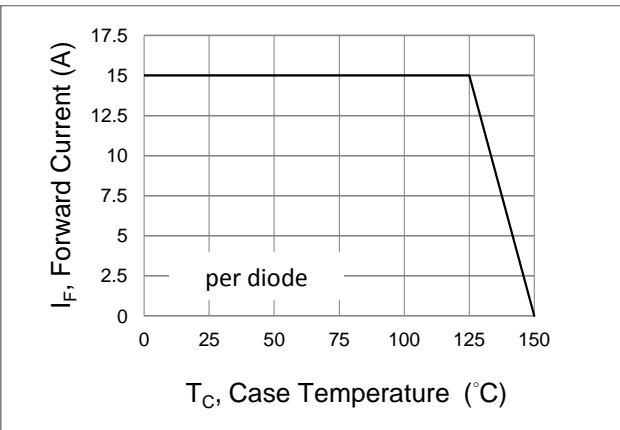


Fig.1 Forward Current Derating Curve

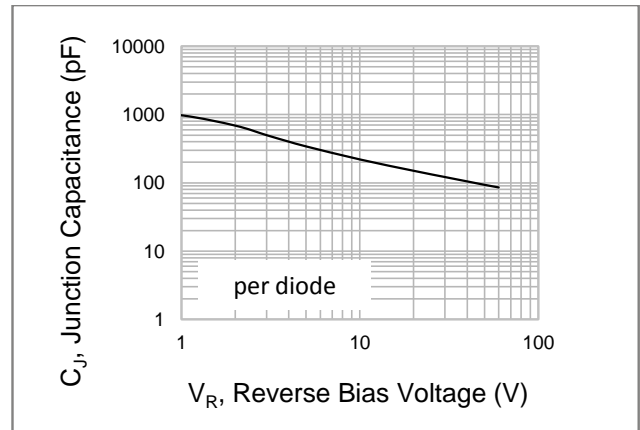


Fig.2 Typical Junction Capacitance

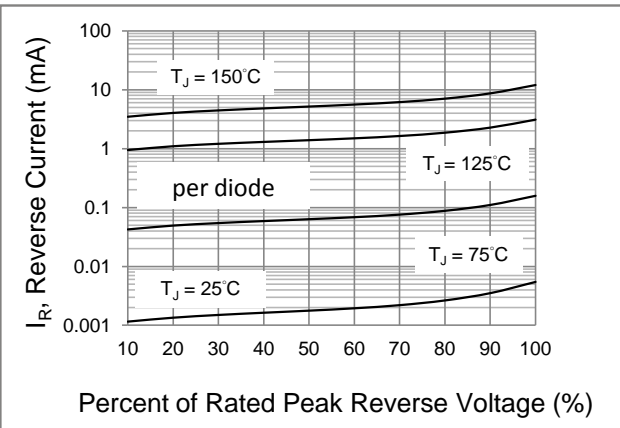


Fig.3 Typical Reverse Characteristics

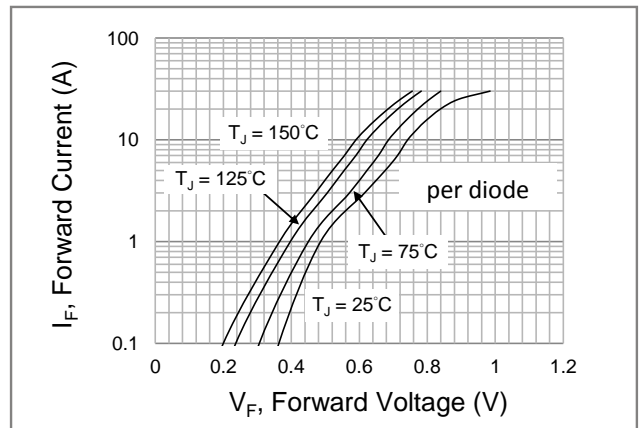


Fig.4 Typical Forward Characteristics