

MBRF20100CL

LOW VF SCHOTTKY RECTIFIER

VOLTAGE 100 Volts **CURRENT** 20 Amperes

FEATURES

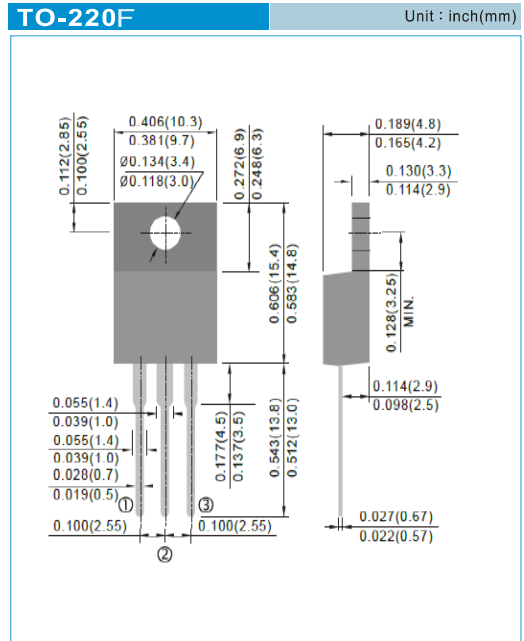
- Low forward voltage drop, low power losses
- High efficiency operation
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

Case : TO-220F, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Weight: 0.0655 ounces, 1.859 grams.



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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum average forward rectified current (Fig.3)	$I_{F(AV)}$	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	200	A
Typical thermal resistance	$R_{\theta JC}$	2.5	$^\circ\text{C/W}$
Operating junction	T_J	-55 to + 150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to + 150	$^\circ\text{C}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	V_{BR}	$I_R=1.0\text{mA}$	103	120	-	V
Instantaneous forward voltage per diode ⁽¹⁾	V_F	$I_F=5\text{A}$ $I_F=10\text{A}$ $T_J=25^\circ\text{C}$	-	0.55	0.68	V
		$I_F=5\text{A}$ $I_F=10\text{A}$ $T_J=125^\circ\text{C}$	-	0.52	0.55	V
Reverse current per diode ⁽²⁾	I_R	$V_R=70\text{V}$	-	12	40	μA
		$V_R=100\text{V}$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	-	3	10 35	μA mA

Note.1 Pulse test : 380 μs pulse width, 1% duty cycle

2. Pulse test : Pulse width $\leq 2.5\text{ms}$



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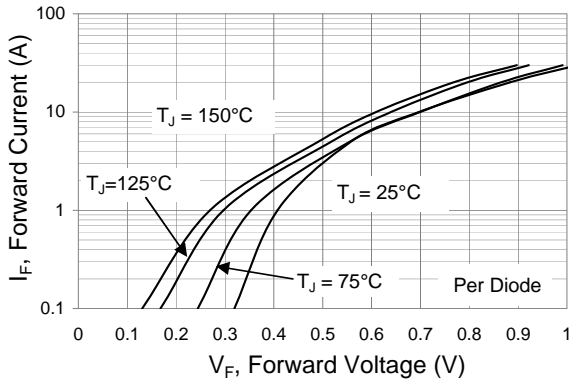


Fig.1 Typical Forward Characteristics

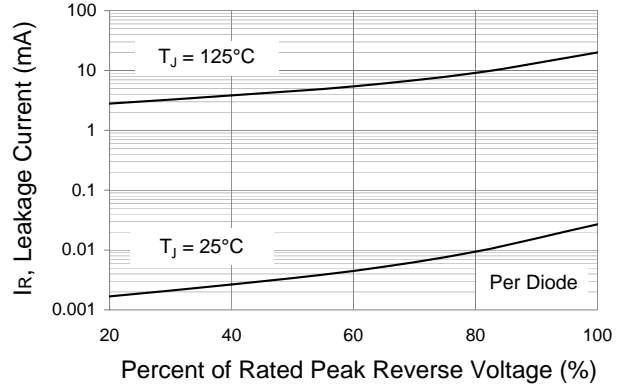


Fig.2 Typical Reverse Characteristics

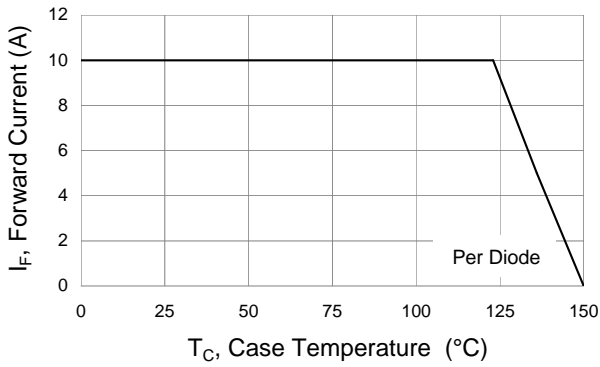


Fig.3 Forward Current Derating Curve

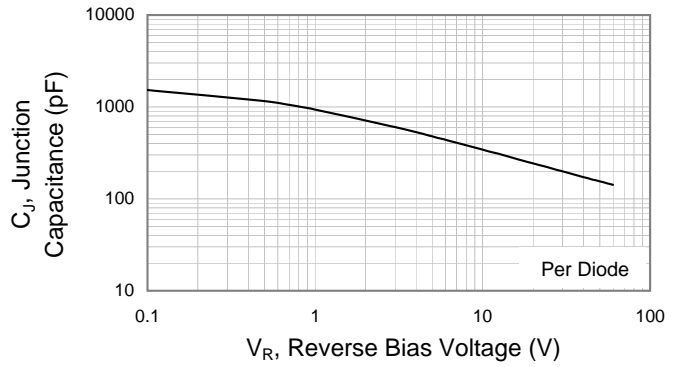


Fig.4 Typical Junction Capacitance