



# MBRF10100CL

## LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 100 Volts **CURRENT** 10 Amperes

### FEATURES

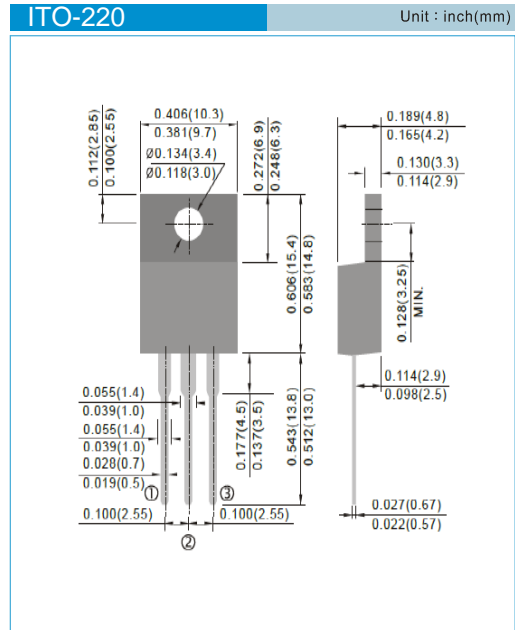
- Ultra Low forward voltage drop, low power losses
- High efficiency operation
- Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

Case : ITO-220, Plastic

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

Weight: 0.065 ounces, 1.859 grams.



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

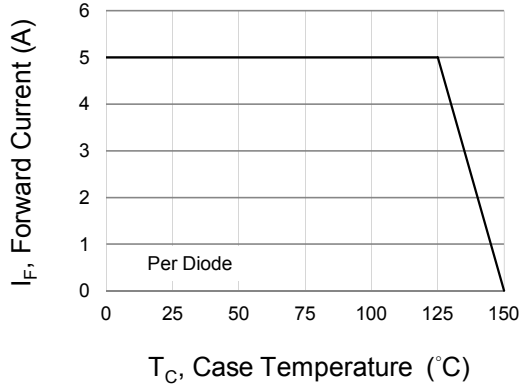
PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	V
Maximum average forward rectified current	$I_{F(AV)}$	5 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	80	A
Typical thermal resistance per diode	$R_{\theta JC}$	4.5	$^\circ\text{C/W}$
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. Mounted on infinite heatsink.

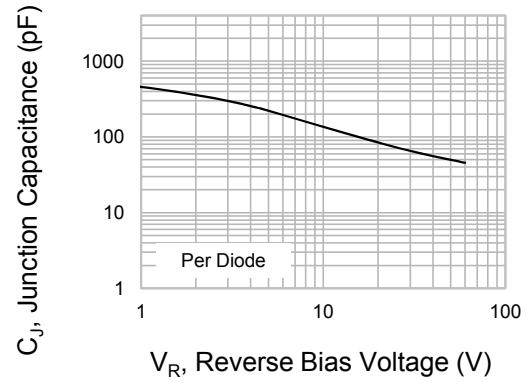
### ELECTRICAL CHARACTERISTICS( $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	$V_{BR}$	$I_R=0.5\text{mA}$	100	-	-	V
Instantaneous forward voltage per diode	$V_F$	$I_F=1\text{A}$ $T_J=25^\circ\text{C}$	-	0.45	-	V
		$I_F=2\text{A}$ $T_J=25^\circ\text{C}$	-	0.51	-	V
		$I_F=5\text{A}$ $T_J=25^\circ\text{C}$	-	0.68	0.74	V
Reverse current per diode	$I_R$	$V_R=1\text{A}$ $T_J=25^\circ\text{C}$	-	0.36	-	V
		$V_R=2\text{A}$ $T_J=125^\circ\text{C}$	-	0.46	-	V
		$V_R=5\text{A}$ $T_J=125^\circ\text{C}$	-	0.62	-	V
Reverse current per diode	$I_R$	$V_R=70\text{V}$ $T_J=25^\circ\text{C}$	-	1.8	-	$\mu\text{A}$
		$V_R=70\text{V}$ $T_J=125^\circ\text{C}$	-	1.7	-	mA
Reverse current per diode	$I_R$	$V_R=100\text{V}$ $T_J=25^\circ\text{C}$	-	-	60	$\mu\text{A}$
		$V_R=100\text{V}$ $T_J=125^\circ\text{C}$	-	3	-	mA

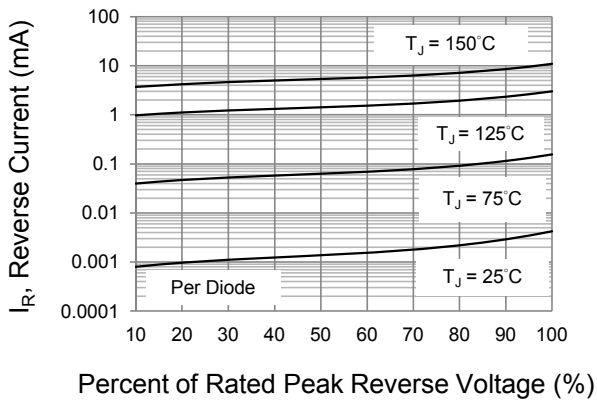
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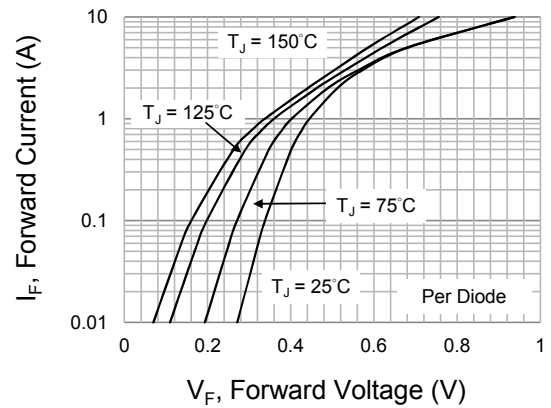
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**