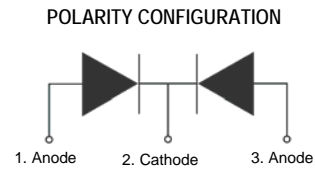
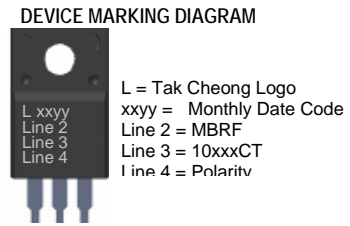
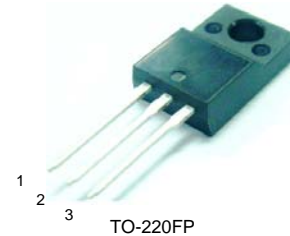


# 10A SCHOTTKY BARRIER DIODE

## Full Pack High Voltage Schottky Rectifier

### Specification Features:

- High Voltage Wide Range Selection, 100V, 150V & 200V
- High Switching Speed Device
- Low Forward Voltage Drop
- Low Power Loss and High Efficiency
- Guard Ring for Over-voltage Protection
- High Surge Capability
- RoHS Compliant
- Matte Tin(Sn) Lead Finish
- Terminal Leads Surface is Corrosion Resistant and can withstand to 260°C Wave Soldering or per MIL-STD-750, Method 2026.



### MAXIMUM RATINGS (Per Leg, unless otherwise specified)

Symbol	Parameter	MBRF10100CT	MBRF10150CT	MBRF10200CT	Units
$V_{RRM}$ $V_{RWM}$ $V_R$	Maximum Repetitive Reverse Voltage Working Peak Reverse Voltage Maximum DC Reverse Voltage	100	150	200	V
$I_{F(AV)}$	Average Rectified Forward Current Per Leg Per Package		5 10		A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current 8.3mS Single Phase @ Rated Load		80		A
$T_{STG}$	Storage Temperature Range		-65 to +150		°C
$T_J$	Operating Junction Temperature		+150		°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

### THERMAL CHARACTERISTIC

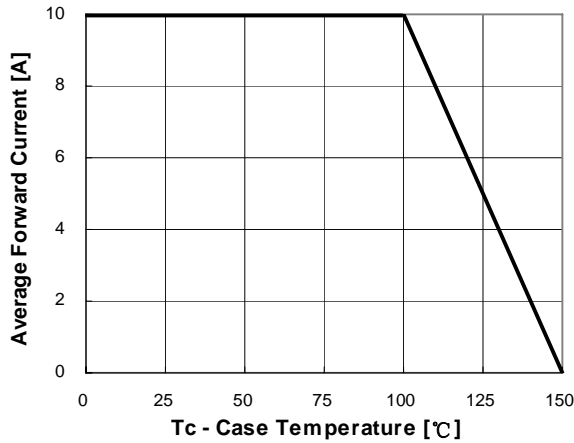
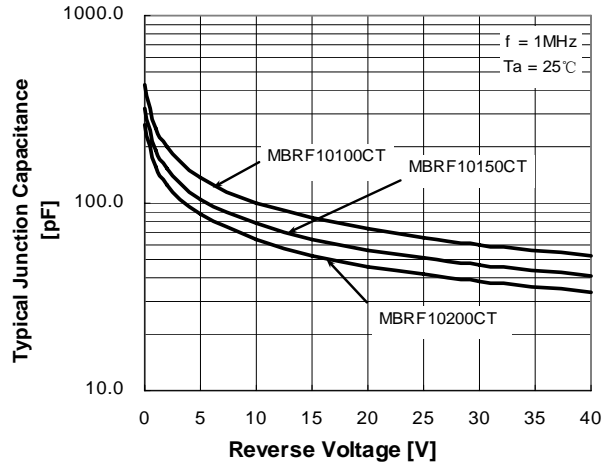
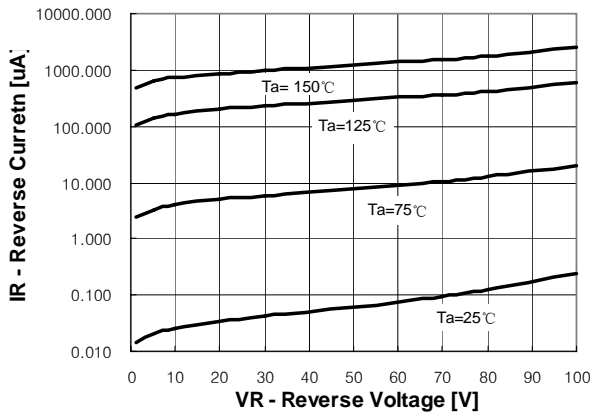
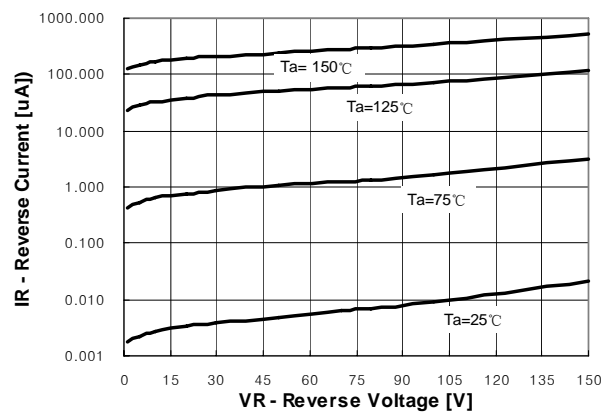
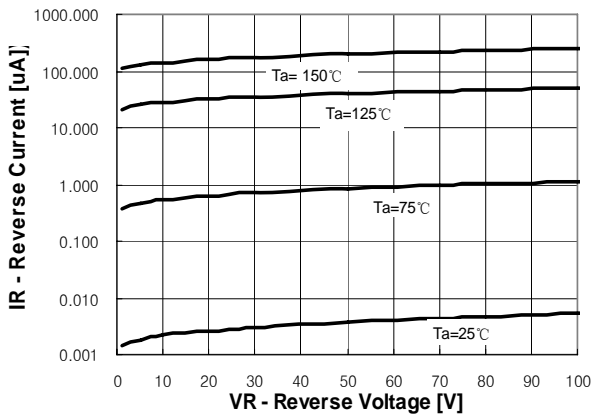
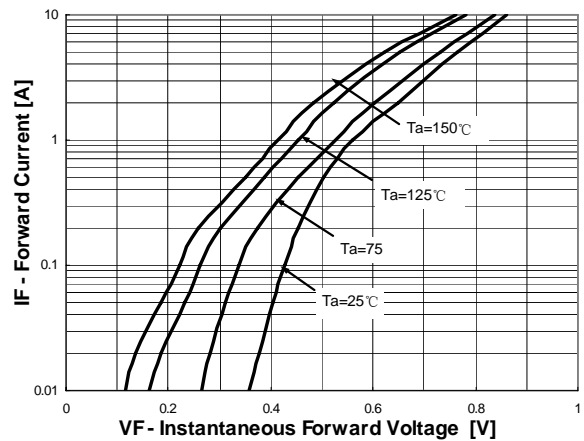
Symbol	Parameter	Value	Units
$R_{\theta JC}$	Maximum Thermal Resistance, Junction-to-Case	1.5	°C/W
$R_{\theta JA}$	Maximum Thermal Resistance, Junction-to-Ambient (per leg)	62.5	°C/W

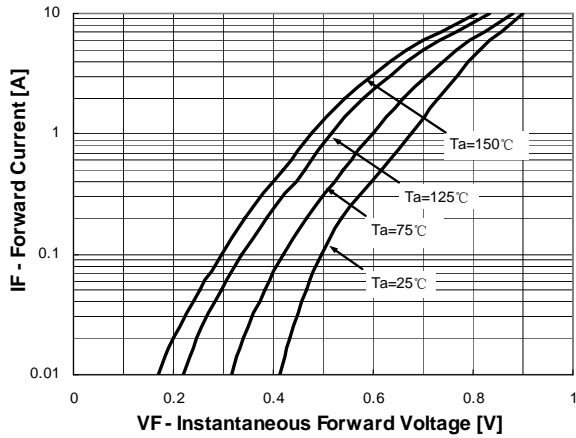
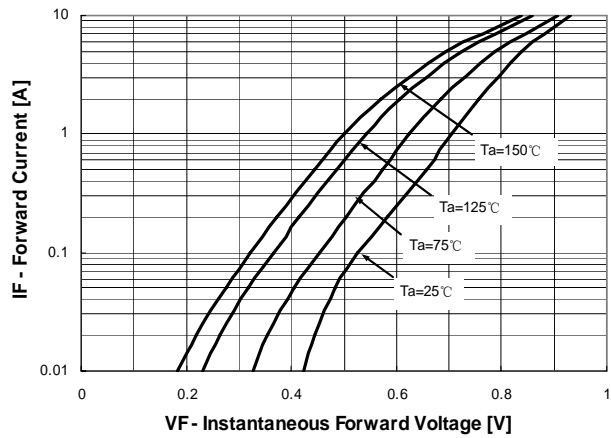
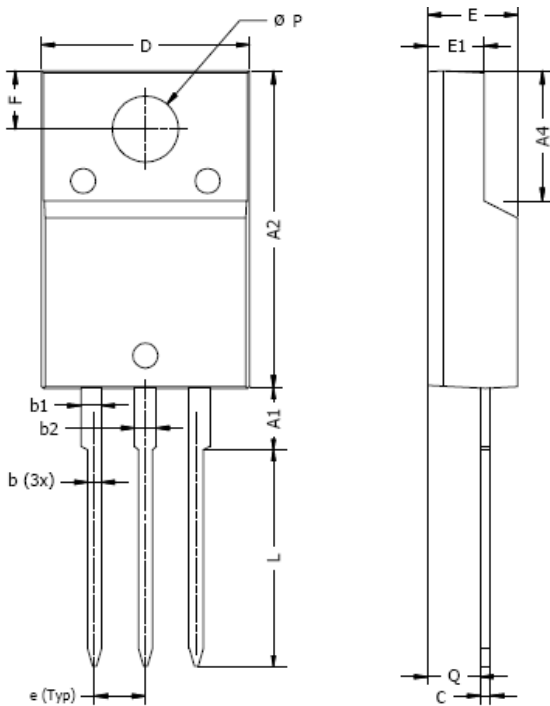
### ELECTRICAL CHARACTERISTICS (Per Leg) $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition (Note 1)	MBRF10100CT		MBRF10150CT		MBRF10200CT		Units
			Min	Max	Min	Max	Min	Max	
$I_R$	Reverse Current	@ rated $V_R$	---	100	---	100	---	100	$\mu\text{A}$
$V_F$	Forward Voltage	$I_F = 5\text{A}$	---	0.85	---	0.92	---	1.00	V
		$I_F = 10\text{A}$	---	0.95	---	1.00	---	1.25	

Note/s:

1. Tested under pulse condition of 300 $\mu\text{S}$ .

**TYPICAL CHARACTERISTICS**
**Figure 1. Forward Current Derating Curve (Per Diode)**

**Figure 2. Junction Capacitance (Per Diode)**

**Figure 3. MBRF10100CT Typical Reverse Current (Per Diode)**

**Figure 4. MBRF10150CT Typical Reverse Current (Per Diode)**

**Figure 5. MBRF10200CT Typical Reverse Current (Per Diode)**

**Figure 6. MBRF10100CT Typical Forward Voltage (Per Diode)**


**Figure 7. MBRF10150CT Typical Forward Voltage (Per Diode)**

**Figure 8. MBRF10200CT Typical Forward Voltage (Per Diode)**

**TO220FP SINGLE GAUGE PACKAGE OUTLINE**


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A1	2.7	3.3	0.106	0.130
A2	15.0	15.7	0.591	0.618
A4	6.2	6.6	0.244	0.260
b	0.5	0.9	0.020	0.035
b1	0.9	1.2	0.035	0.047
b2	1.0	1.2	0.039	0.047
c	0.4	0.6	0.016	0.024
D	9.8	10.3	0.386	0.406
e	2.34	2.74	0.092	0.108
E	4.3	4.6	0.169	0.181
E1	2.5	2.9	0.098	0.114
F	2.6	3.0	0.102	0.118
L	10.3	10.7	0.406	0.421
ØP	3.0	3.4	0.118	0.134
Q	2.3	2.7	0.091	0.106

## **NOTICE**

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