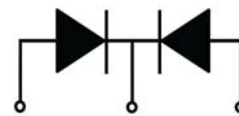
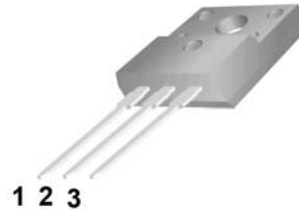


**MBRF6040CT-MBRF60200CT**
**Features:**

- Low power loss. high efficiency.  
High surge capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Metal silicon junction, majority carrier conduction.
- High current Capability. low forward voltage drop.
- Guard ring for over voltage protection.


**TO-220F**


1.Anode 2.Cathode 3. Anode

**Absolute Maximum Ratings (Ta=25°C unless otherwise noted)**

Parameter	Symbol	MBRF 6040 CT	MBRF 6045 CT	MBRF 6050 CT	MBRF 6060 CT	MBRF 6080 CT	MBRF 6090 CT	MBRF 60100 CT	MBRF 60150 CT	MBRF 60200 CT	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	28	31.5	35	42	56	63	70	105	140	
Maximum DC Blocking Voltage	$V_{R(DC)}$	40	45	50	60	80	90	100	150	200	
Maximum Average Forward Current	$I_{F(AV)}$	60									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	350									
Maximum Forward Voltage at 30A per leg	$V_F$	0.65		0.72		0.82		0.92			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_j=25^\circ\text{C}$	0.1							0.05		mA
	$T_j=125^\circ\text{C}$	20									
Maximum Operating Junction Temperature	$T_j$	150				175					°C
Storage Temperature	$T_{stg}$	-55~+150				-65~+175					
Typical Thermal Resistance	$R_{\theta JC}$	1.3									°C/W

Typical Characteristics

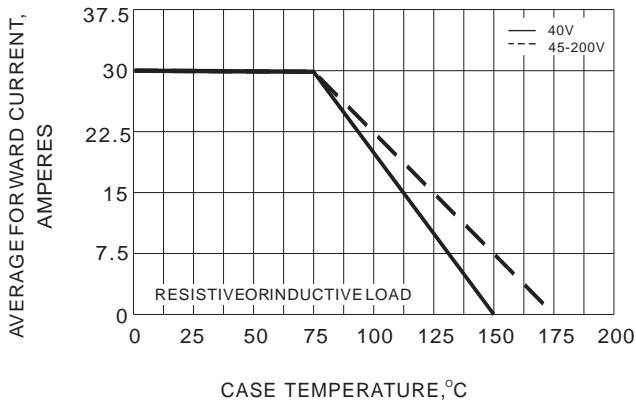


Fig.1 FORWARD CURRENT DERATING CURVE

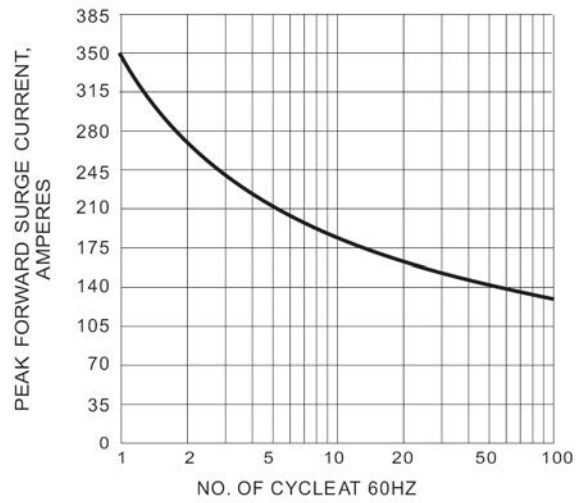


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

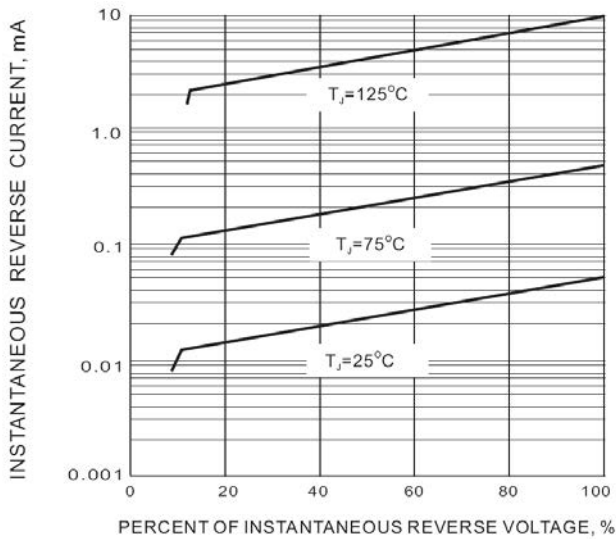


Fig 3. TYPICAL REVERSE CHARACTERISTIC

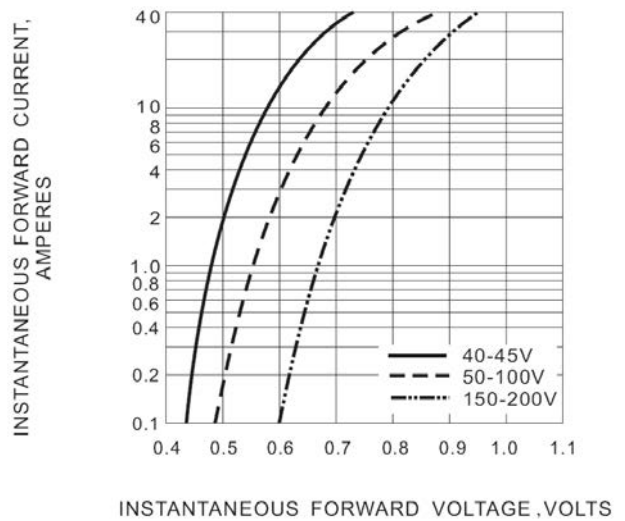


Fig 4. TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

**Package Dimension**
**TO-220F**

UNIT: mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	9.80		10.60	D		2.54	
A1		7.00		D1	1.15		1.55
A2	2.90		3.40	D2	0.60		1.00
A3	9.10		9.90	D3	0.20		0.50
B1	15.40		16.40	E	2.24		2.84
B2	4.35		4.95	E1		0.70	
B3	6.00		7.40	E2		1.0×45°	
C	3.00		3.70	E3	0.35		0.65
C1	15.00		17.00	E4	2.30		3.30
C2	8.80		10.80	α (度)		30°	

