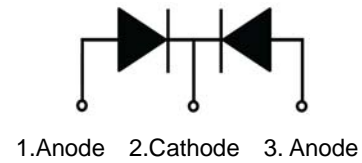
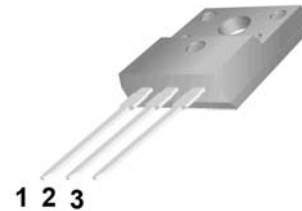


**MBRF1040CT-MBRF10200CT**
**Features:**

- 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


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

Parameter	Symbol	MBRF 1040 CT	MBRF 1045 CT	MBRF 1050 CT	MBRF 1060 CT	MBRF 1080 CT	MBRF 1090 CT	MBRF 10100 CT	MBRF 10150 CT	MBRF 10200 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	$I_{F(AV)}$	10									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150									
Maximum Forward Voltage at 5A per leg	$V_F$	0.65	0.72		0.85			0.92		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_j=25^\circ\text{C}$	$I_R$	0.1								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	$R_{\theta JC}$	1.4									°C/W

**Typical Characteristics**

**RATING AND CHARACTERISTIC CURVES**

FIG. 1- FORWARD CURRENT DERATING CURVE

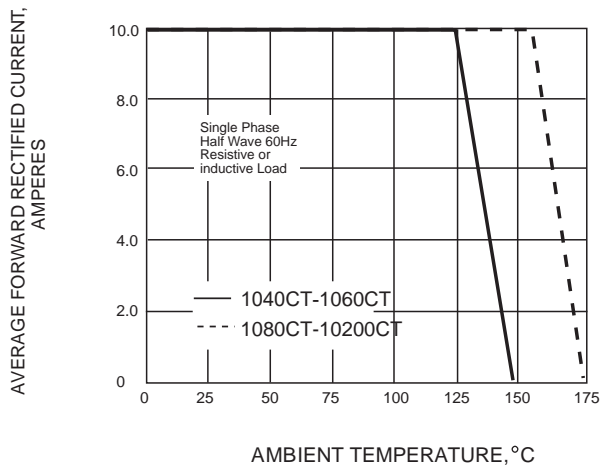


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

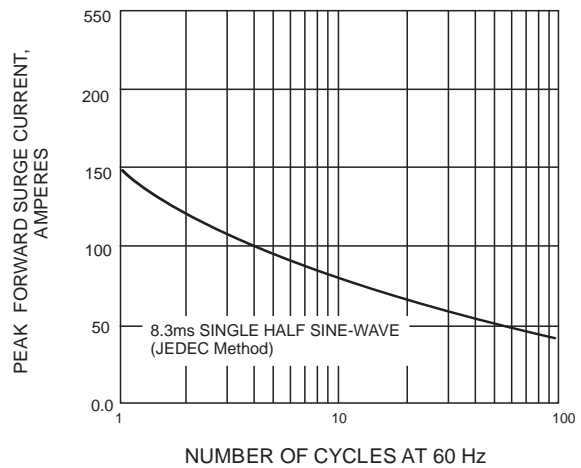


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

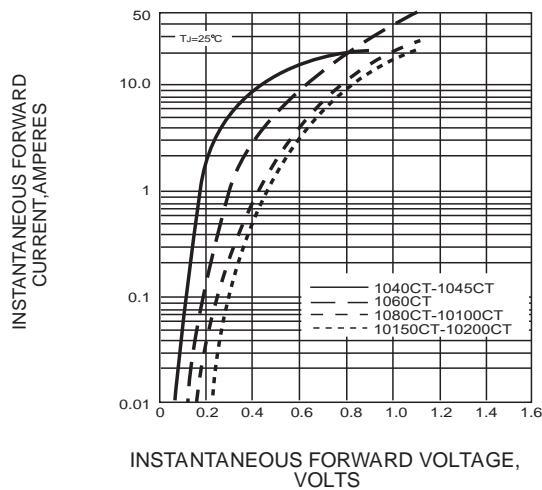
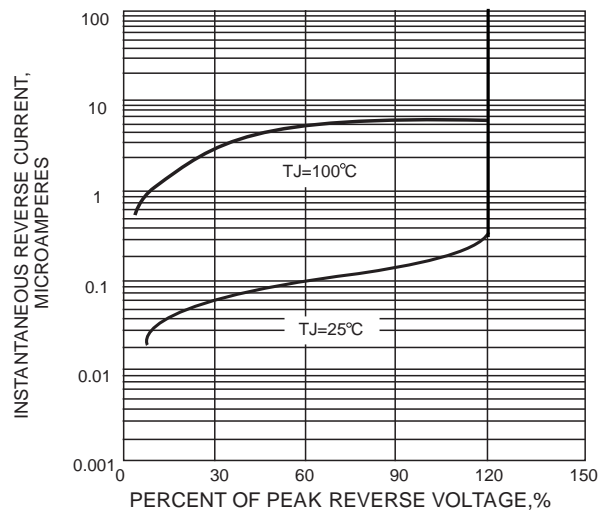
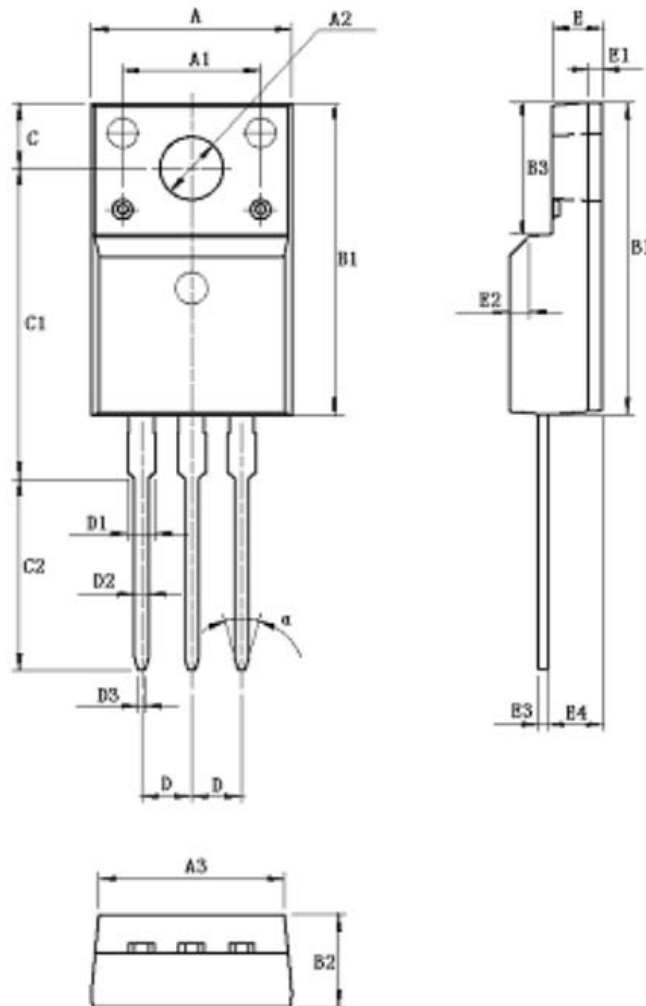


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



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

Units: mm



Symbol	Min	Max	Symbol	Min	Max
A	9.96	10.36	D	2.54	
A1	7.00		D1	1.15	1.35
A2	3.08	3.28	D2	0.70	0.90
A3	9.25	9.65	D3	0.28	0.48
B1	15.70	16.10	E	2.34	2.74
B2	4.50	4.90	E1	0.70	
B3	6.20	6.80	E2	1.0×45°	
C	3.20	3.40	E3	0.36	0.65
C1	15.20	16.00	E4	2.55	2.95
C2	9.75	10.15	a(度)	30°	