

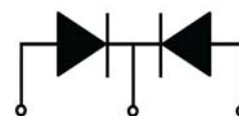
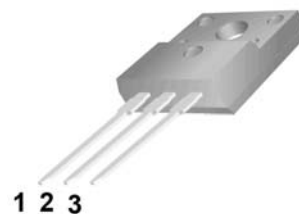
## MBR4040FCT-MBR40200FCT

### 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	MBR 4040 FCT	MBR 4045 FCT	MBR 4050 FCT	MBR 4060 FCT	MBR 4080 FCT	MBR 4090 FCT	MBR 40100 FCT	MBR 40150 FCT	MBR 40200 FCT	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	$I_{F(AV)}$	40									A	
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	350										
Maximum Forward Voltage at 20A 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

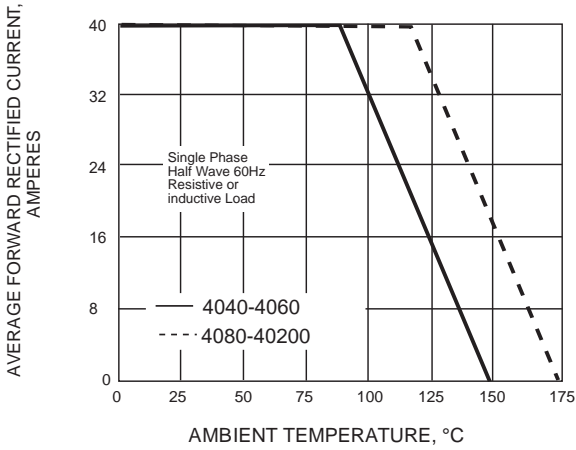


Fig.1 FORWARD CURRENT DERATING CURVE

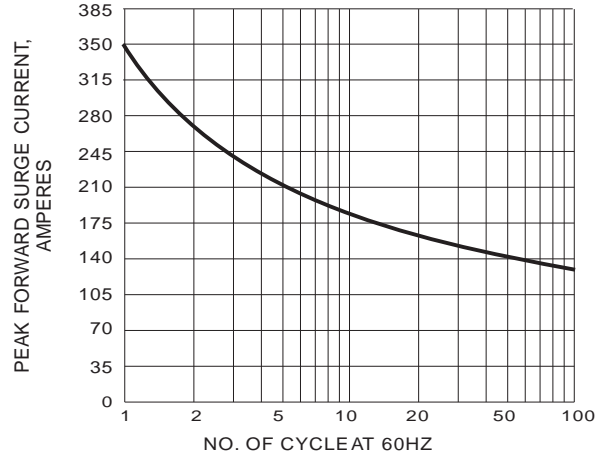


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

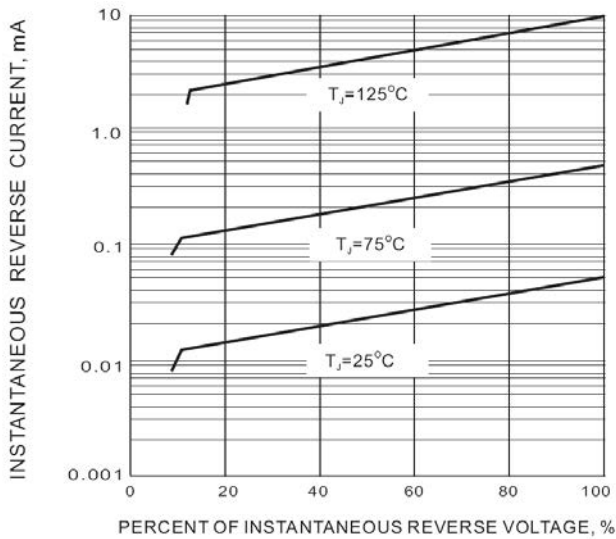


Fig 3. TYPICAL REVERSE CHARACTERISTIC

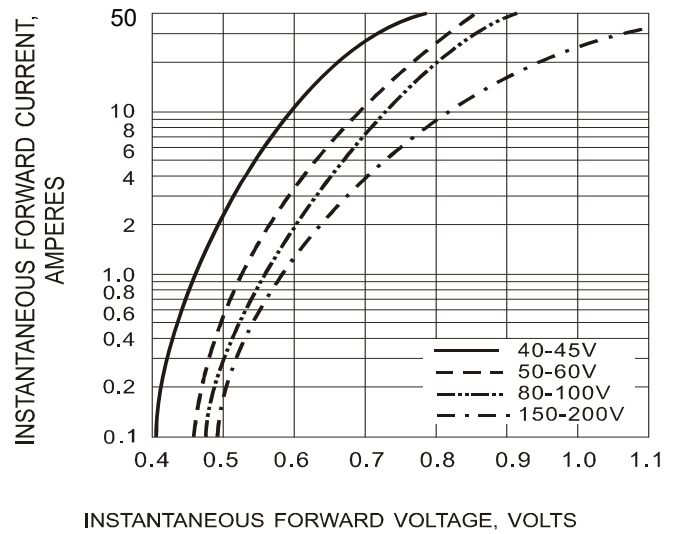
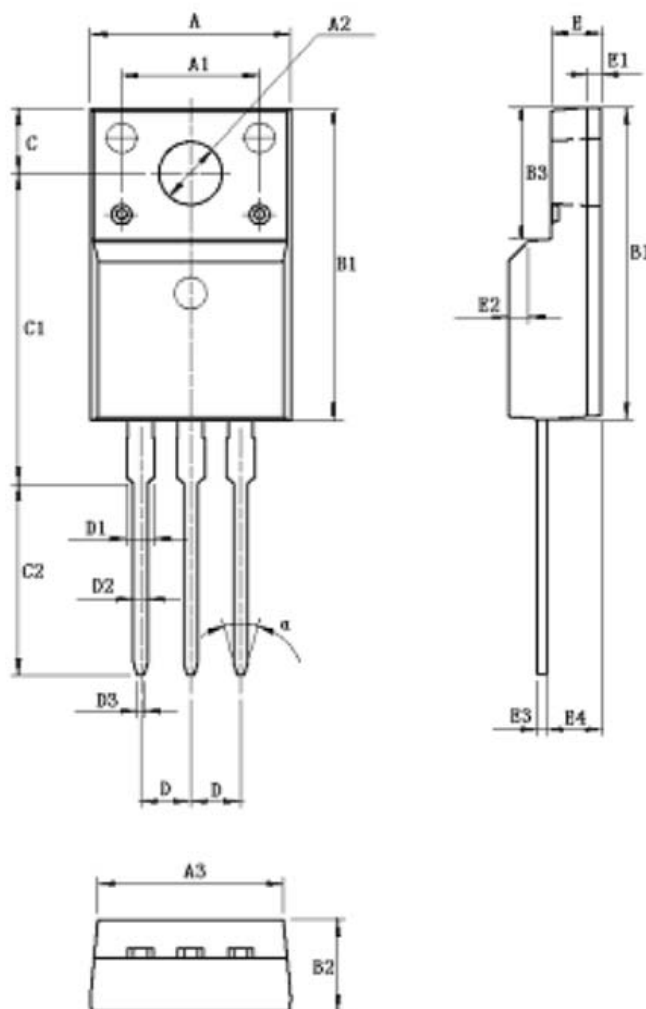


Fig 4. TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Dimension

TO-220F

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°	