



20 AMPS SCHOTTKY BARRIER RECTIFIER

<p style="font-size: 1.2em; font-weight: bold; margin-bottom: 10px;">MBRF2040CT-1-MBRF20200CT-1</p> <p><b>Features:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Low power loss,high efficiency. High surge capacity</li> <li><input type="checkbox"/> For use in low voltage,high frequency inverters, free wheeling,and polarity protection applications.</li> <li><input type="checkbox"/> Metal silicon junction,majority carrier conduction.</li> <li><input type="checkbox"/> High current Capability,low forward voltage drop.</li> <li><input type="checkbox"/> Guard ring for over voltage protection.</li> </ul>	<div style="display: flex; justify-content: space-between; align-items: center;"> </div> <p style="font-size: 1.1em; font-weight: bold; margin-bottom: 10px;">TO-220F</p> <p style="font-size: 0.9em; margin-top: 5px;">1.Anode 2.Cathode 3. Anode</p>
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**Absolute Maximum Ratings** (Ta=25°C unless otherwise noted)

PARAMETER	Symbol	MBRF 2040 CT-1	MBRF 2045 CT-1	MBRF 2050 CT-1	MBRF 2060 CT-1	MBRF 2080 CT-1	MBRF 2090 CT-1	MBRF 20100 CT-1	MBRF 20150 CT-1	MBRF 20200 CT-1	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	V
Maximum DC Blocking Voltage	$V_{R(DC)}$	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current	$I_{F(AV)}$	20									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200									A
Maximum Forward Voltage at 10A per leg	$V_F$	0.65		0.72		0.85			0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_j=25^\circ\text{C}$	0.1									mA
	$T_j=125^\circ\text{C}$	20									mA
Maximum Operating Junction Temperature	$T_j$	150				175					°C
Storage Temperature	$T_{stg}$	-55~+ 150				-65~+175					°C
Typical Thermal Resistance	$R_{\theta JC}$	1.4									°C/W



Typical Characteristics

RATING AND CHARACTERISTIC CURVES

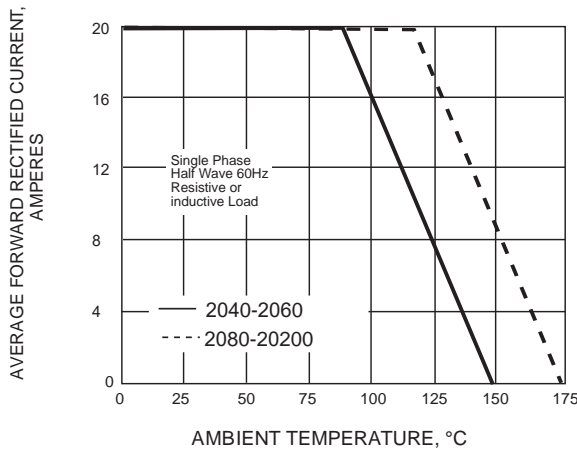


Fig.1 FORWARD CURRENT ERATING CURVE

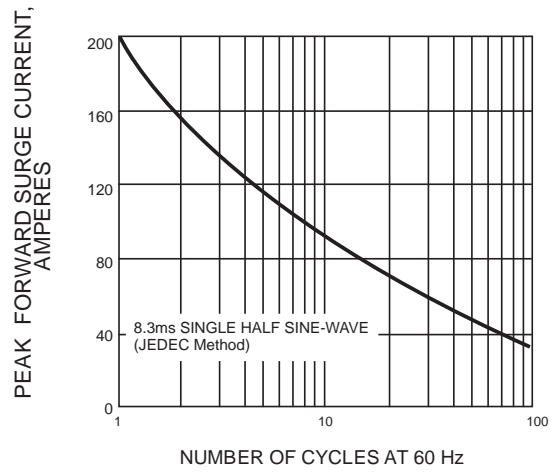


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

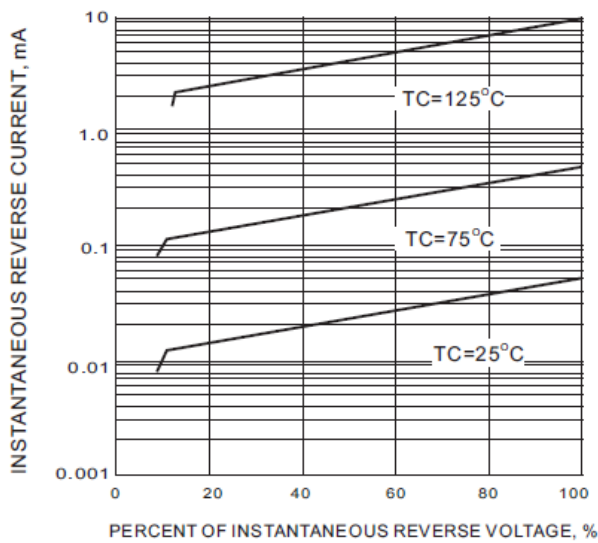


Fig.3 TYPICALREVERSE CHARACTERISTIC

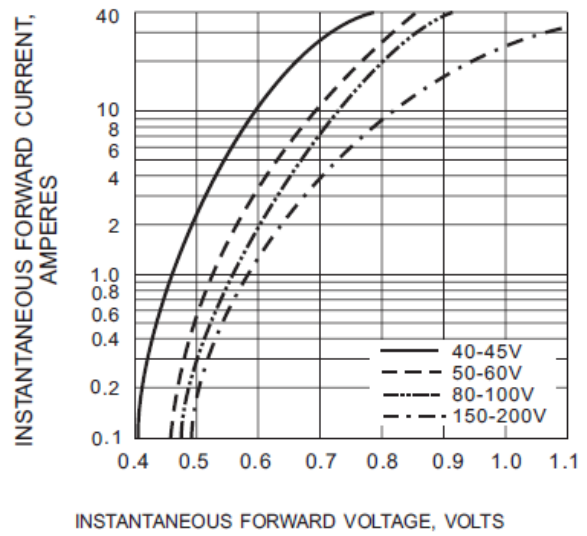


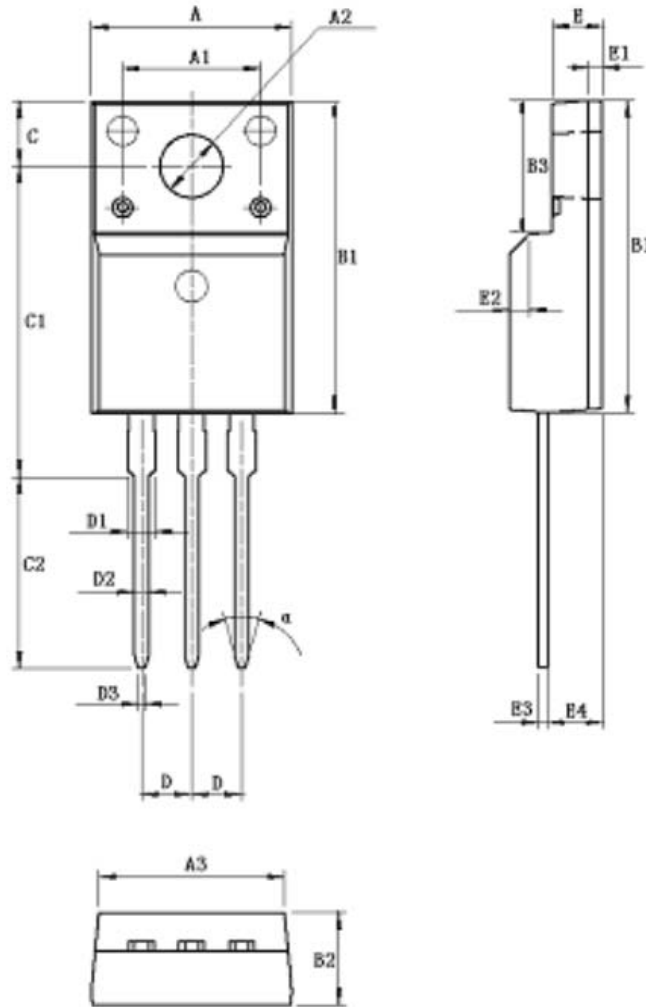
Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC



**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°	

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