

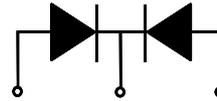
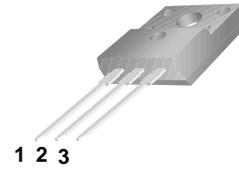


MBRF2040CT - MBRF20200CT

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 capacity, low forward voltage drop.
- Guard ring for over voltage protection.

TO-220F



1. Anode 2. Cathode 3. Anode

Absolute Maximum Ratings*

T = 25°C unless otherwise noted

PARAMETER	SYMBOL	F2040CT	F2045CT	F2050CT	F2060CT	F2080CT	F2090CT	F20100CT	F20150CT	F20200CT	UNITS
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_{DC}	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current	$I_{F(AV)}$	20									A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200									A
Maximum Forward Voltage at 15A per leg	V_F	0.7		0.75		0.85		0.95			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	I_R					0.1					mA
Typical Thermal Resistance	$R_{\theta JC}$					1.4					°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150				-65 to +175					°C

Typical Characteristics

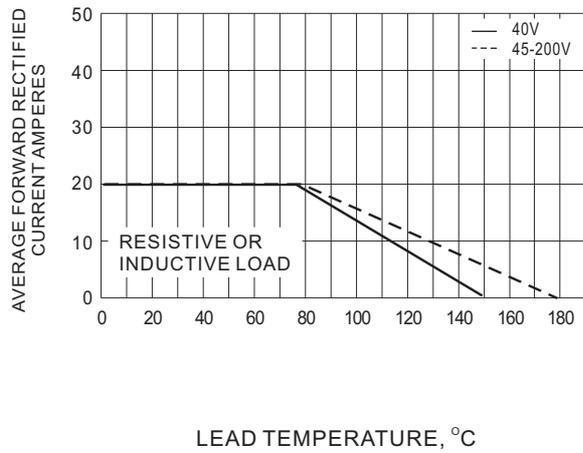


Fig.1- FORWARD CURRENT DERATING CURVE

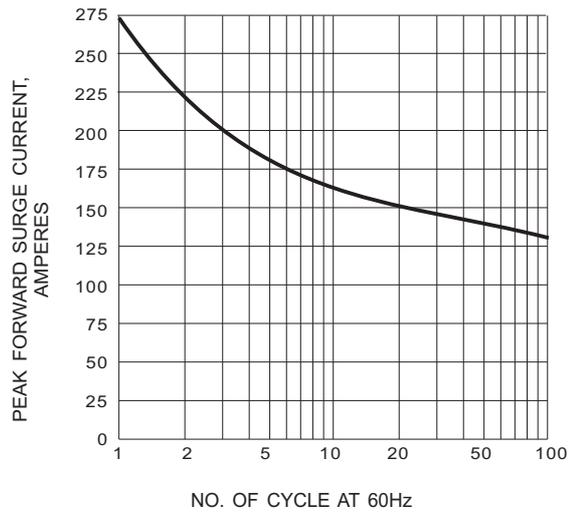


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

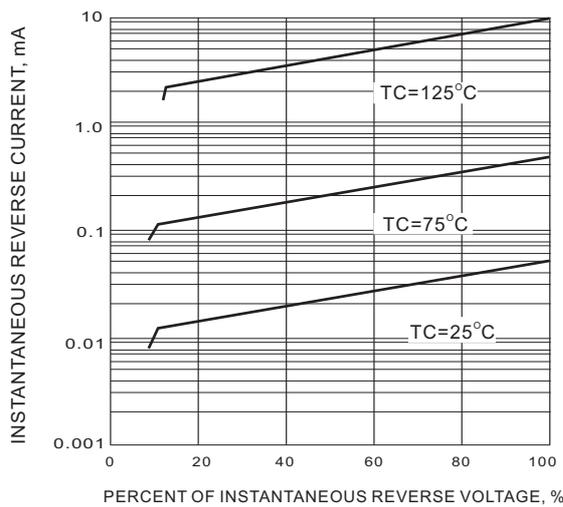


Fig.3- TYPICAL REVERSE CHARACTERISTIC

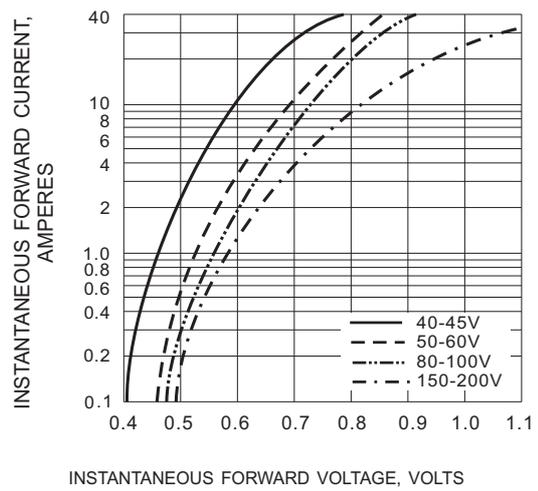
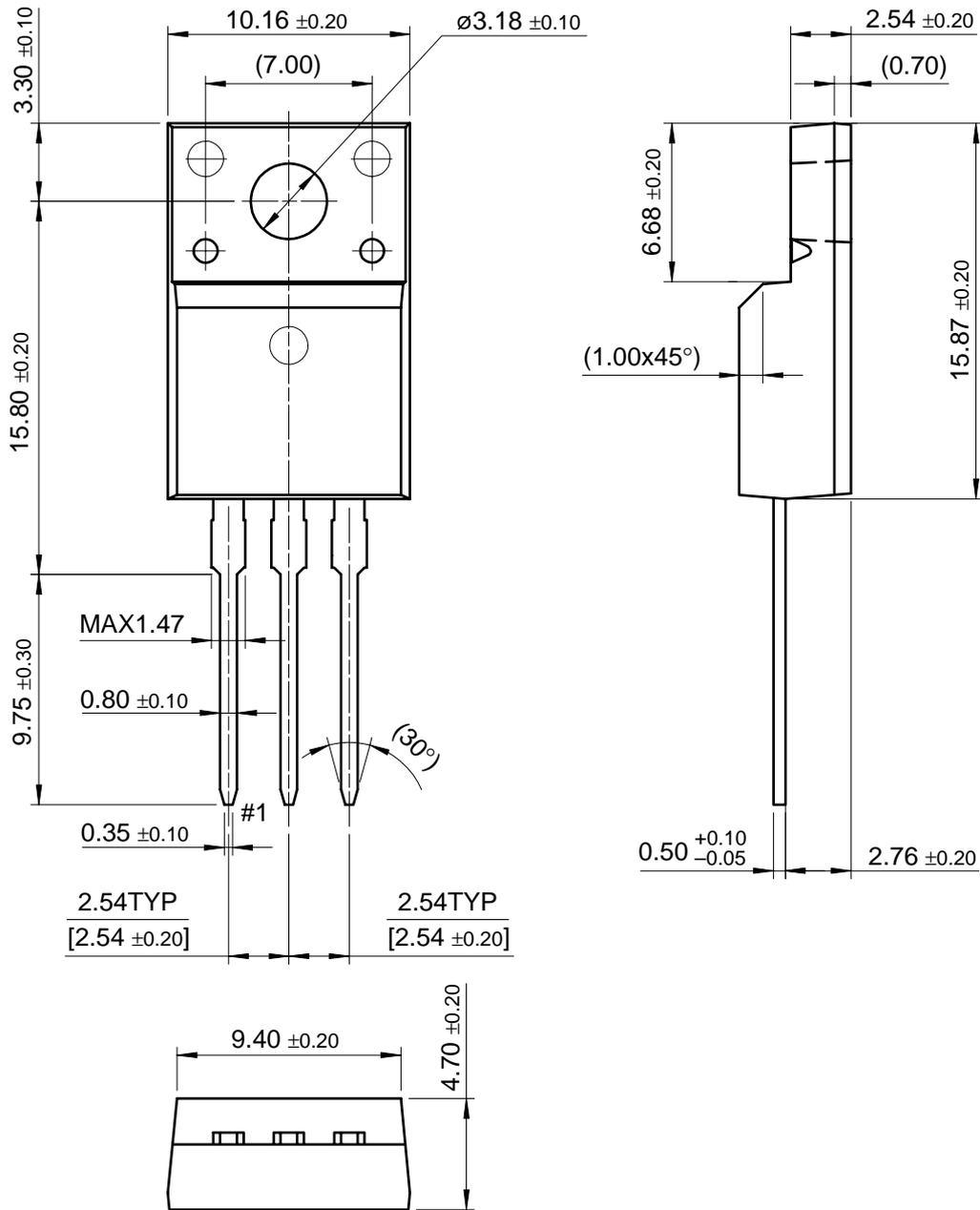


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Dimension

TO-220F



Dimensions in Millimeters