

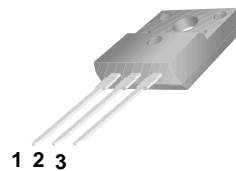


Technologies Int'l

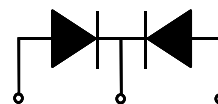
MBRF20100CT

Features

- Low forward voltage drop
- High frequency properties and switching speed
- Guard ring for over-voltage protection



1 2 3



1. Anode 2. Cathode 3. Anode

TO-220F

Absolute Maximum Ratings (per diode) $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	100	V
V_R	Maximum DC Reverse Voltage	100	V
$I_{F(AV)}$	Maximum Average Rectified Current @ $T_C = 105^\circ\text{C}$	20	A
I_{FSM}	Maximum Forward Surge Current (per diode) 60Hz Single Half-Sine Wave	150	A
T_J, T_{STG}	Operating Junction and Storage Temperature	-65 to +150	$^\circ\text{C}$

Thermal Characteristics

Symbol	Parameter	Value	Units
$R_{\theta JC}$	Maximum Thermal Resistance, Junction to Case (per diode)	2.8	$^\circ\text{C/W}$

Electrical Characteristics (per diode) $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Min.	Typ.	Max.	Units
V_{FM}^*	Maximum Instantaneous Forward Voltage			$T_C = 25^\circ\text{C}$	0.77
				$T_C = 125^\circ\text{C}$	0.65
				$T_C = 25^\circ\text{C}$	-
				$T_C = 125^\circ\text{C}$	0.75
I_{RM}^*	Maximum Instantaneous Reverse Current (per diode) @ rated V_R			$T_C = 25^\circ\text{C}$	0.1
				$T_C = 125^\circ\text{C}$	20

* Pulse Test: Pulse Width=300 μs , Duty Cycle=2%

Typical Characteristics

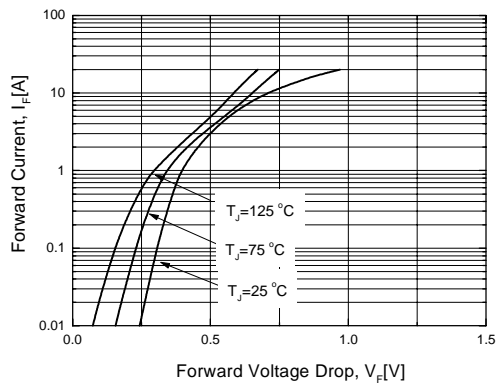


Figure 1. Typical Forward Voltage Characteristics (per diode)

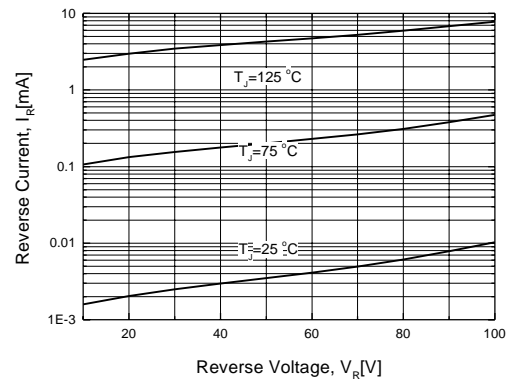


Figure 2. Typical Reverse Current vs. Reverse Voltage (per diode)

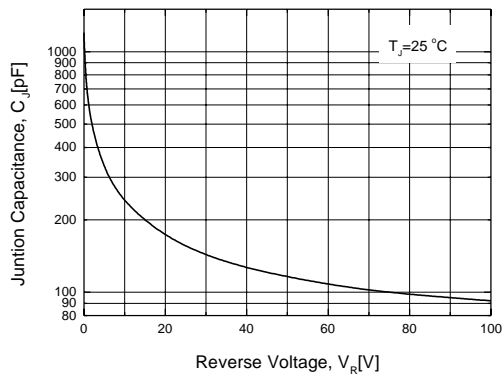


Figure 3. Typical Junction Capacitance (per diode)

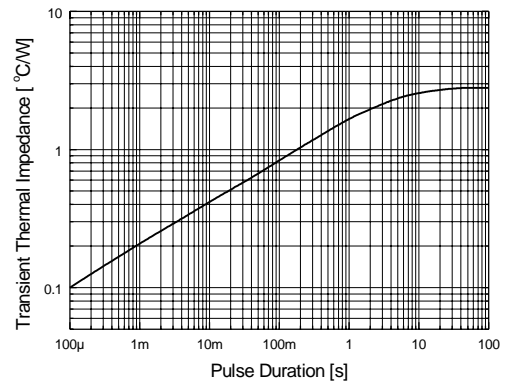


Figure 4. Thermal Impedance Characteristics (per diode)

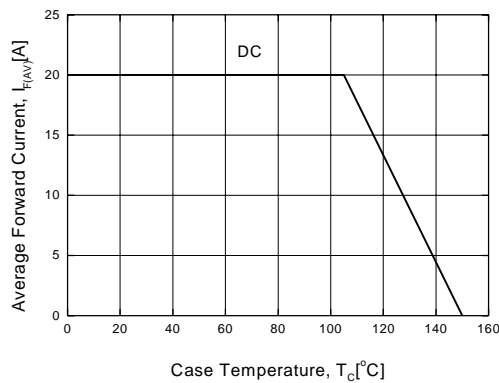


Figure 5. Forward Current Derating Curve

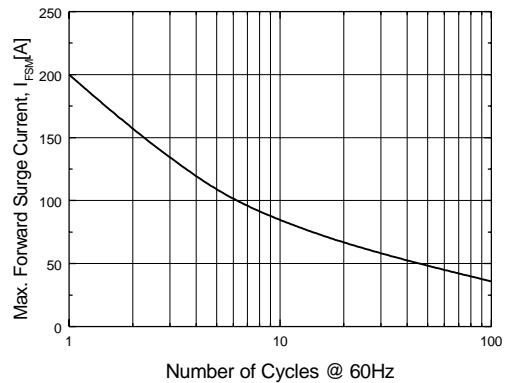
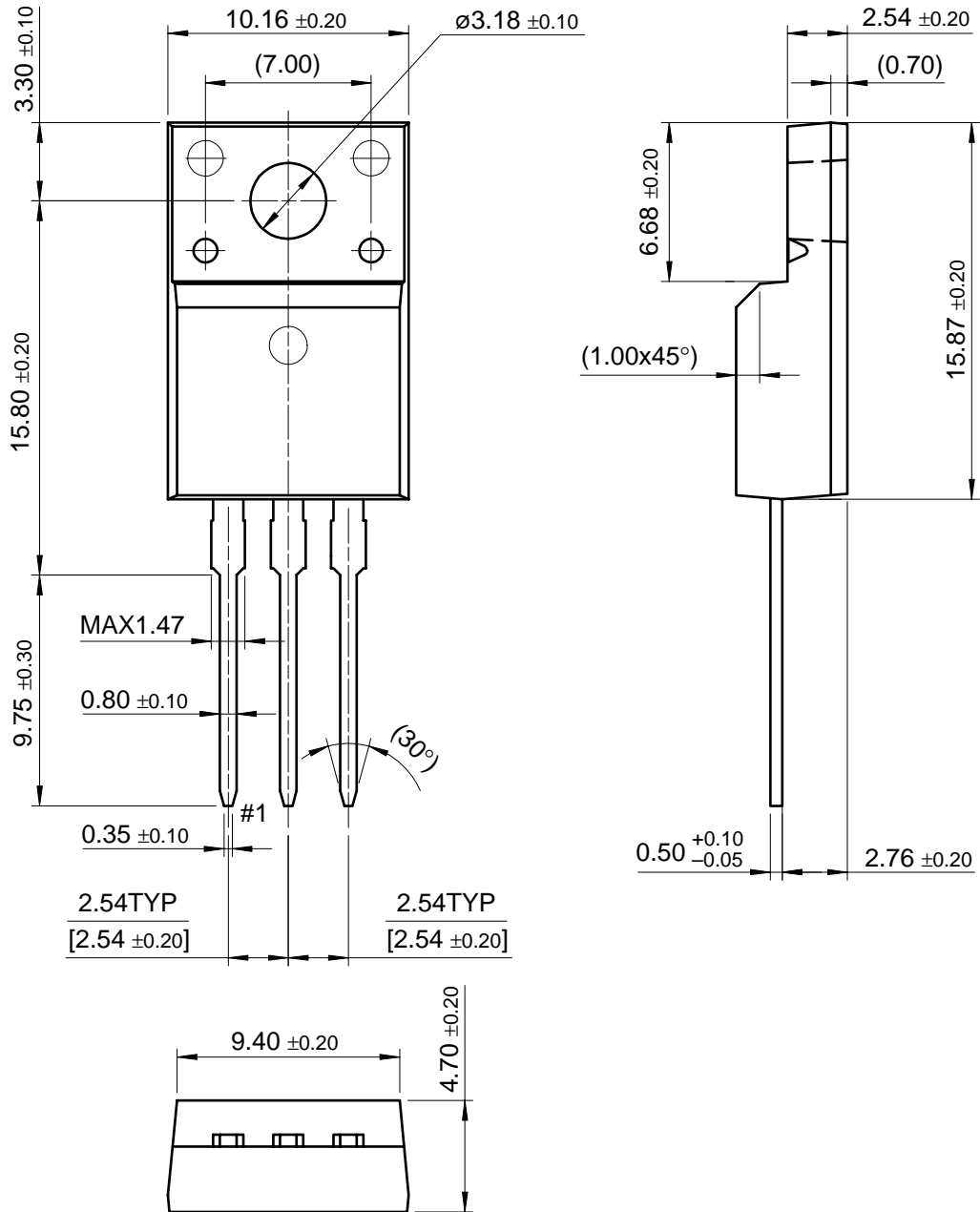


Figure 6. Non-Repetitive Surge Current (per diode)

Package Dimension

TO-220F



Dimensions in Millimeters