



# MBRF20S100CT

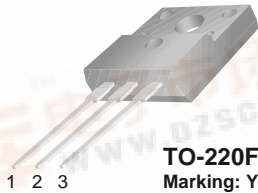
## Schottky Barrier Rectifier

### Features

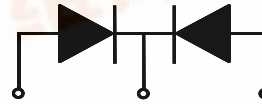
- Low forward voltage drop
- High frequency properties and switching speed
- Guard ring for over-voltage protection

### Applications

- Switched mode power supply
- Freewheeling diodes



**TO-220F**  
Marking: YM20S100CT



1. Anode 2.Cathode 3. Anode

### Absolute Maximum Ratings T<sub>a</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	100	V
V <sub>R</sub>	Maximum DC Reverse Voltage	100	V
I <sub>F(AV)</sub>	Average Rectified Forward Current @T <sub>C</sub> = 125°C	20	A
I <sub>F(SM)</sub>	Non-Repetitive Peak Surge Current (per diode) 60Hz Single Half-Sine Wave	200	A
T <sub>J</sub> , T <sub>STG</sub>	Operating Junction and Storage Temperature	-65 to +150	°C

### Thermal Characteristics

Symbol	Parameter	Value	Units
R <sub>θJC</sub>	Maximum Thermal Resistance, Junction to Case (per diode)	2.8	°C/W

### Electrical Characteristics T<sub>C</sub> = 25°C unless otherwise noted

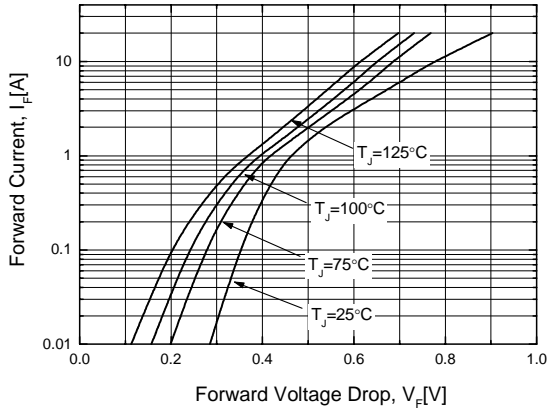
Symbol	Parameter	Value	Units	
V <sub>FM</sub> *	Maximum Instantaneous Forward Voltage	T <sub>C</sub> = 25°C I <sub>F</sub> = 10A	-	V
		T <sub>C</sub> = 125°C I <sub>F</sub> = 10A	0.70	V
		T <sub>C</sub> = 25°C I <sub>F</sub> = 20A	0.95	V
		T <sub>C</sub> = 125°C I <sub>F</sub> = 20A	0.85	V
I <sub>RM</sub> *	Maximum Instantaneous Reverse Current @ rated V <sub>R</sub>	T <sub>C</sub> = 25°C	0.1	mA
		T <sub>C</sub> = 125°C	20	mA

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

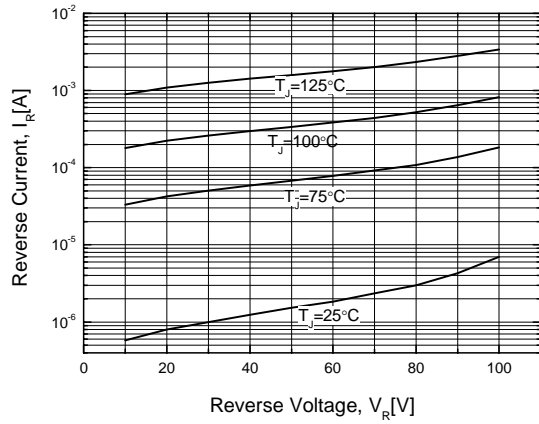


## Typical Performance Characteristics

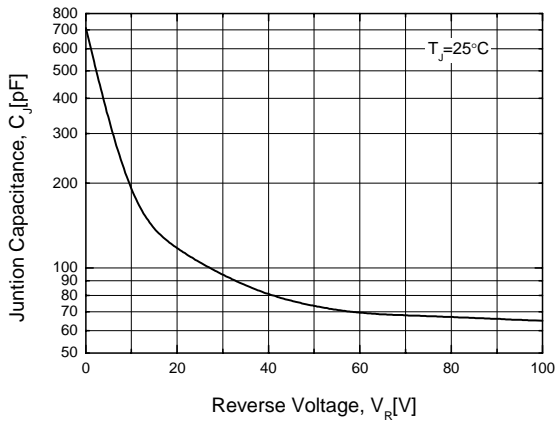
**Figure 1. Typical Forward Voltage Characteristics (per diode)**



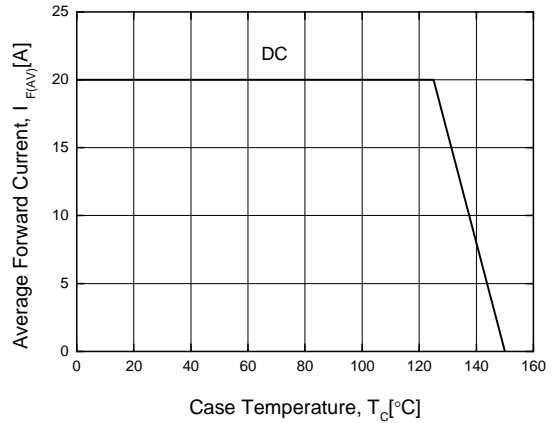
**Figure 2. Typical Reverse Current vs. Reverse Voltage (per diode)**



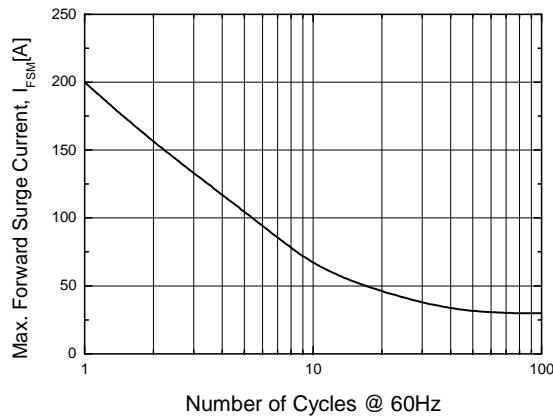
**Figure 3. Typical Junction Capacitance (per diode)**



**Figure 4. Forward Current Derating Curve**

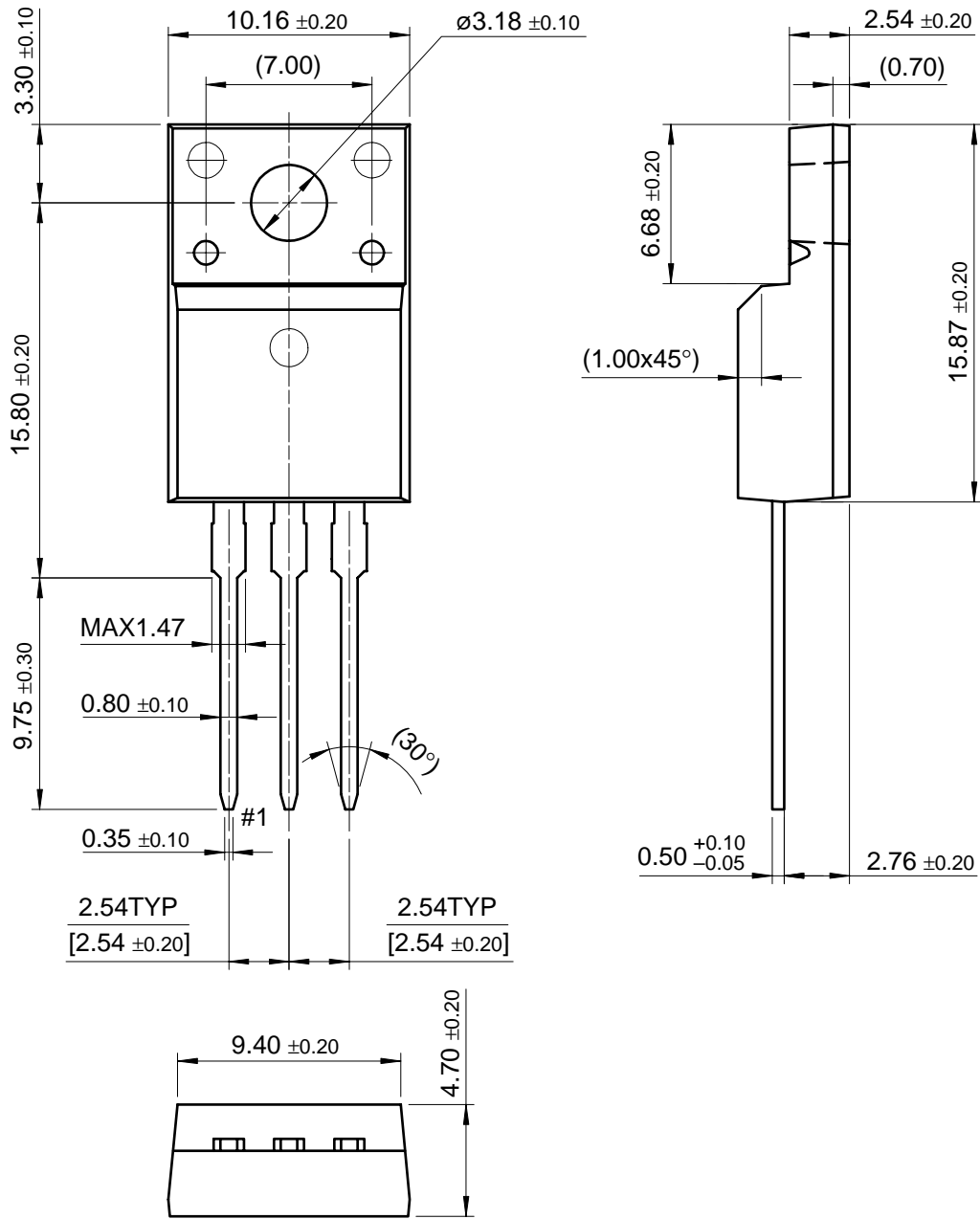


**Figure 5. Non-Repetitive Surge Current (per diode)**



# Mechanical Dimensions

## TO-220F



MBRF20S100CT Schottky Barrier Rectifier

Dimensions in Millimeters

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EcoSPARK™	I <sup>2</sup> C™	MSXPro™	RapidConnect™	UniFET™
E <sup>2</sup> CMOST™	i-Lo™	OCX™	μSerDes™	VCX™
EnSigna™	ImpliedDisconnect™	OCXPro™	SILENT SWITCHER®	Wire™
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