



## **MBR20100FCT**

### **Schottky Barrier Rectifier**

Voltage 100 V Current 20 A

#### **Features**

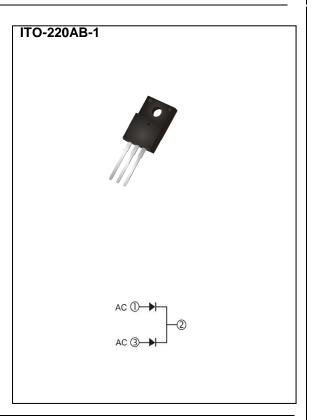
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### **Mechanical Data**

• Case: ITO-220AB-1 Package

• Terminals: Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.0765 ounces, 2.17 grams



### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS		
Maximum Repetitive Peak Reverse Voltage		$V_{RRM}$	100	V	
Maximum Rms Voltage		$V_{RMS}$	70	V	
Maximum Dc Blocking Voltage		V <sub>DC</sub>	100	V	
Maximum Average Forward Current	per device		20		
	per diode		10	Α	
Peak Forward Surge Current: 8.3 ms Single Half Sine- Wave Superimposed On Rated Load per diode		Ігѕм	200	А	
Typical Junction Capacitance		C <sup>2</sup>	000	pF	
Measured at 1 MHZ And Applied V <sub>R</sub> = 4 V			263		
Typical Thermal Resistance per diode		R <sub>0</sub> JC <sup>(1)</sup>	2	°C/W	
Operating Junction Temperature Range		TJ	-65~175	°C	
Storage Temperature Range		T <sub>STG</sub>	-65~175	°C	





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## **Electrical Characteristics** (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	VF	I <sub>F</sub> = 1 A, T <sub>J</sub> = 25 °C	-	0.51	-	V
		I <sub>F</sub> = 10 A, T <sub>J</sub> = 25 °C	-	0.77	0.8	
		I <sub>F</sub> = 1 A, T <sub>J</sub> = 125 °C	-	0.4	-	
		I <sub>F</sub> = 10 A, T <sub>J</sub> = 125 °C	-	0.63	-	
Reverse Current	1 (2)	V <sub>R</sub> = 100 V, T <sub>J</sub> = 25 °C	-	-	0.05	mA
	I <sub>R</sub> <sup>(2)</sup>	V <sub>R</sub> = 100 V, T <sub>J</sub> = 125 °C	-	-	20	

#### NOTES:

- 1. Mounted on infinite heatsink
- 2. Short duration pulse test used to minimize self-heating effect





## **MBR20100FCT**

#### **TYPICAL CHARACTERISTIC CURVES**

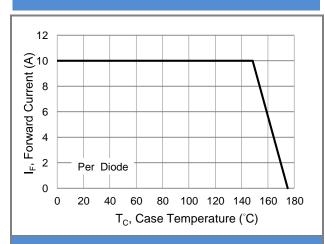
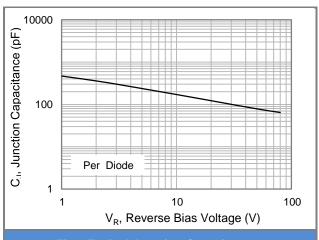
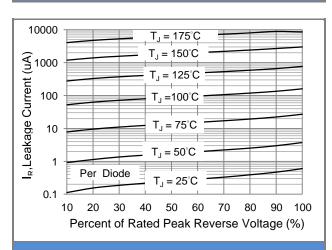


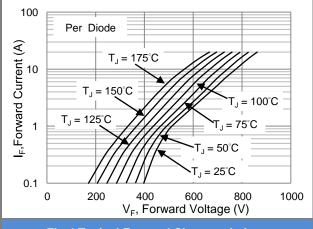
Fig.1 Forward Current Derating Curve



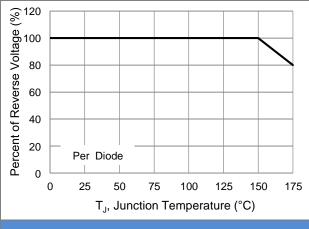
**Fig.2 Typical Junction Capacitance** 



**Fig.3 Typical Reverse Characteristics** 



**Fig.4 Typical Forward Characteristics** 



**Fig.5 Operating Temperature Derating Curve** 



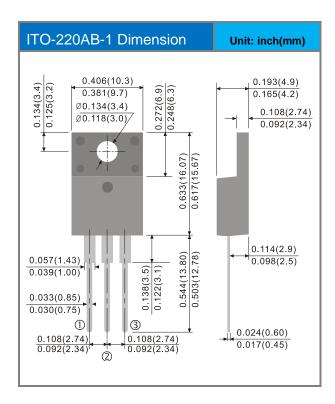


## **MBR20100FCT**

### **Part No Packing Code Version**

Part No Packing Code	Package Type	Packing Type	Marking	Version
MBR20100FCT_T0_00101	ITO-220AB-1	50pcs / Tube	MBR20100FCT	Halogen free

### **Packaging Information**







## **MBR20100FCT**

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