

Description

The MBR20100CT is Schottky Barrier Diode in a TO-220F Plastic Package.

Features

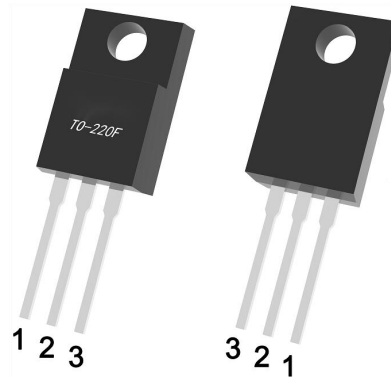
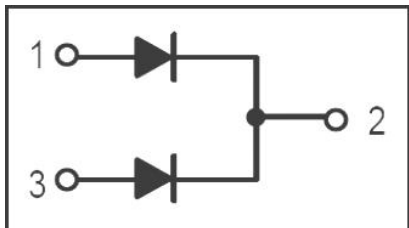
- Low power loss
- High efficiency

Applications

- For use in low voltage
- High frequency inverters
- Free wheeling
- Polarity protection applications

V_{RM}	$I_{F(AV)}$ (total)	I_{FSM}
100V	20A	150A

Equivalent Circuit & Pinning



PIN1: Anode PIN 2: Cathode PIN 3: Anode

Marking

See Marking Instructions.

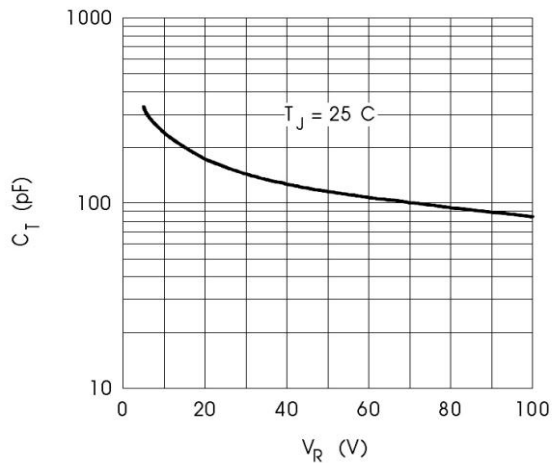
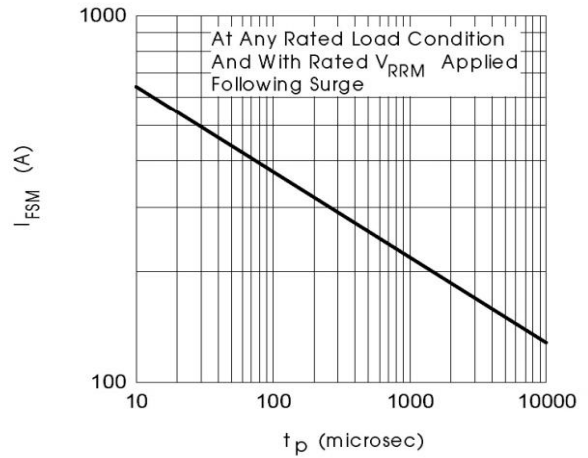
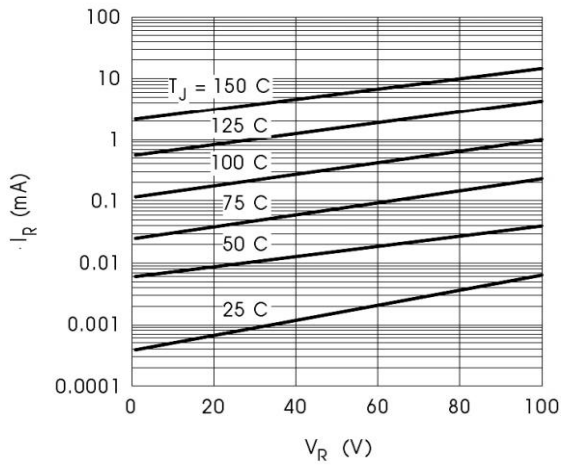
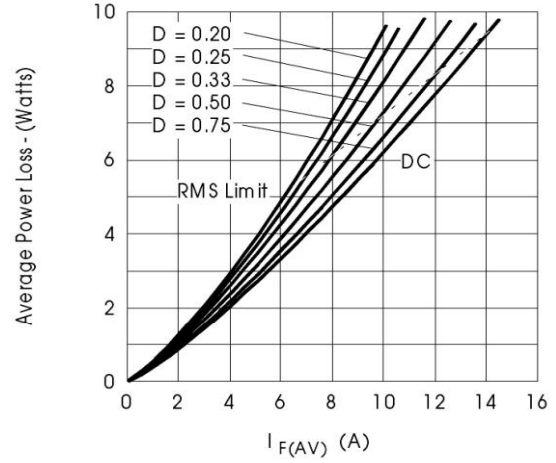
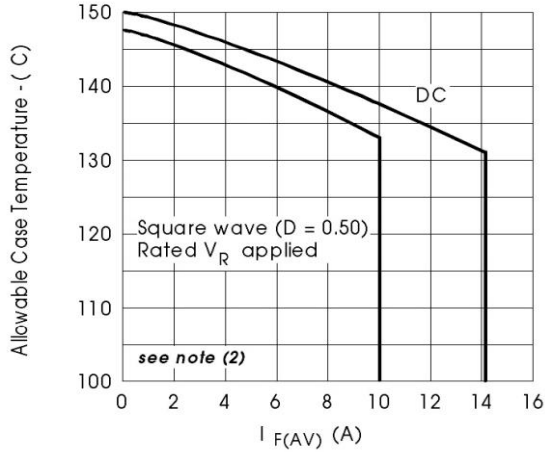
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
Reverse forward current	I_{FRM}	20	A
Average Forward Current	$I_{F(AV)}$	10	A
Average Forward Current (total)	$I_{F(AV)}$ (total)	20	A
Non Repetitive Peak Surge Current	I_{FSM}	150	A
Peak Repetitive Reverse Current	I_{RRM}	0.5	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	3.5	°C/W
Junction Temperature Range	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

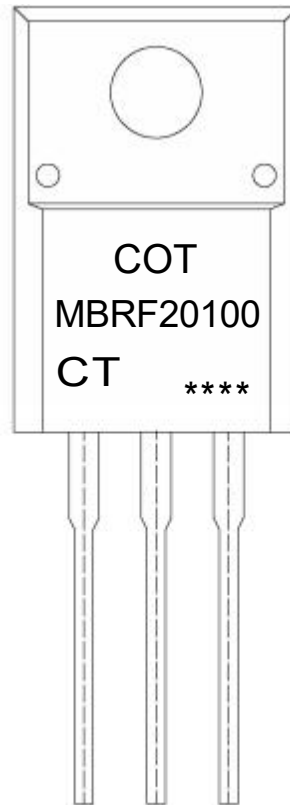
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F = 10A(T_c = 25^\circ C)$			0.85	V
		$I_F = 10A(T_c = 125^\circ C)$			0.7	V
		$I_F = 20A(T_c = 25^\circ C)$			0.95	V
		$I_F = 20A(T_c = 125^\circ C)$			0.85	V
Instantaneous Reverse Current	I_R	$V_R = 100V(T_c = 25^\circ C)$			0.15	mA
		$V_R = 100V(T_c = 125^\circ C)$			150	mA
Critical rate of rise of reverse voltage	dv/dt				10000	V/ μ s

Electrical Characteristic Curve



Marking instructions



- Note:
- COT: Company Code
 - MBRF20100: Product Type.
 - CT: Internal Structure
 - ****: Lot No. Code, code change with Lot No.

Packaging SPEC.

BULK

Package Type	Units					Dimension (unit: mm ³)		
	Units/Bag	Bags/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

TUBE

Package Type	Units					Dimension (unit: mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

Package Dimensions.

TO-220F

单位: mm

