MBR20300FCT

Schottky Barrier Diodes

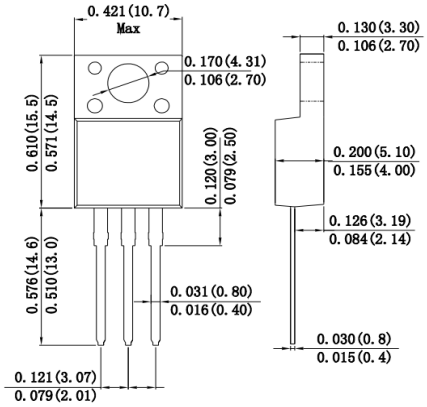
TO-220F

RoHS COMPLIANT

Pb-Free

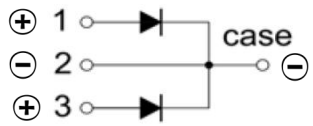
FEATURES

- Low power loss, high efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- Guard Ring for over voltage protection
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications



MECHANICAL DATA

- Case: TO-220F
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 2.00 grams (approximate)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	300	V
DC Reverse Voltage	V_R	300	V
RMS Reverse Voltage	V_{RMS}	210	V
Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms	I_{FSM}	150	A
Mean rectifying current	I_F	20	A
Power dissipation	P_D	2	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	50	°C/W
Junction Temperature	T_J	125	°C
Storage Temperature	T_{STG}	-55 ~+150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min	Max	Unit	Conditions
Forward voltage	V_F		1	V	I_F=10A
			1.2	V	I_F=20A (PLUST TEST)
Reverse current	I_R		0.10	mA	V_R=300V
Reverse voltage	V_R	300		V	I_R=1mA

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

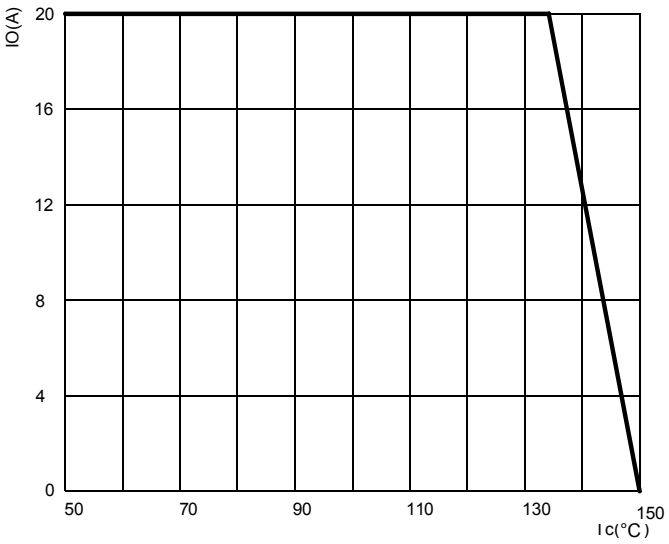


FIG2:Surge Forward Current Capadility

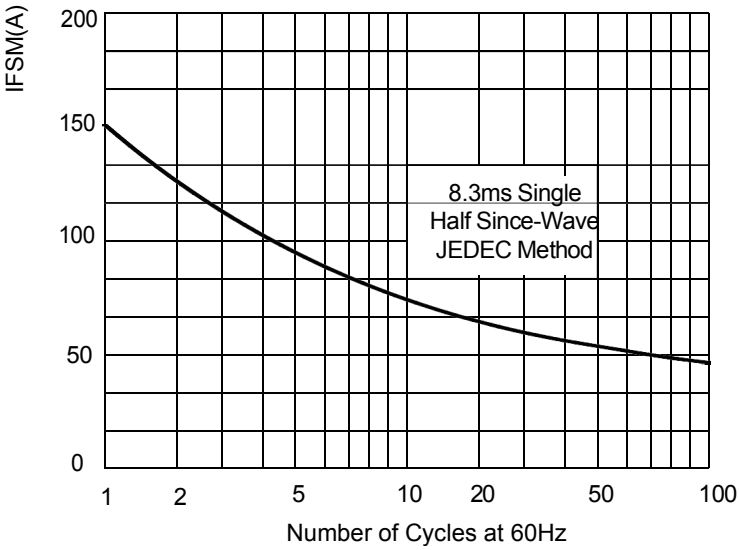


FIG3:Instantaneous Forward Voltage

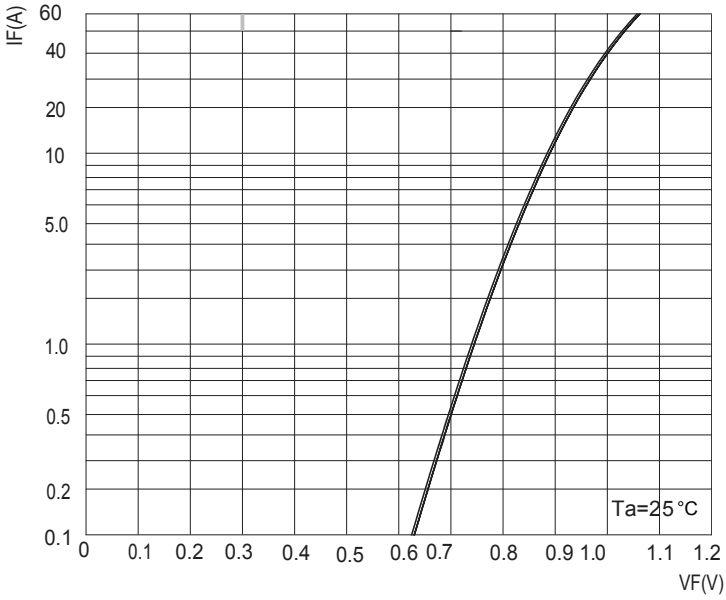


FIG.4 : TYPICAL REVERSE CHARACTERISTICS