

30.0A 300V Schottky Barrier Diode

Product Character

- Multilayer Metal -Silicon Potential Structure.
- Low Leakage Current.
- High Current Capability, High Efficiency.
- High Junction Temperature Capability.
- RoHS Product.
- Compliance with EU REACH.

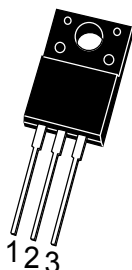
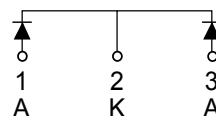
Primary Use

- Low Voltage High Frequency Switching Power Supply.
- Low Voltage High Frequency Invers Circuit.
- Low Voltage Continued Circuit and Protection Circuit.

Summarize

- MBR30H300FCT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Equivalent Circuit



Package: ITO-220AB
MBR30H300FCT
MBR30H300FCT-HF
HF=Halogen Free

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Item		Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage		V_{RRM}	300	V
Average Rectified Forward Current(Rated VR-20Khz Square Wave)-50% duty cycle	Per Device	I_{FAV}	30	A
	Per Diode		15	
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	Per Diode	I_{FSM}	160	A
Operating Junction Temperature		T_J	-40~175	°C
Storage Temperature		T_{STG}	-40~175	°C
Typical Thermal Resistance(per leg)	Package=ITO-220AB	$R_{\theta JC}$	4	°C/W

Electricity Character Per Diode (Ta=25°C unless otherwise noted)

Item	Test Condition	Value(min)	Value(typ)	Value(max)	Unit
V_B	Tj=25°C, IR=1mA	300	—	—	V
I_R	Tj=25°C, VR=300V	—	—	10	μA
	Tj=125°C, VR=300V	—	—	2	mA
V_F	Tj=25°C, IF=15A	—	0.92	1	V
	Tj=125°C, IF=15A	—	—	0.92	V
C_J	Tj=25°C, VR=4V, f=1MHz	—	130	—	pF



Typical Characteristics Curves

Fig1. Typical Forward Current and Forward Voltage

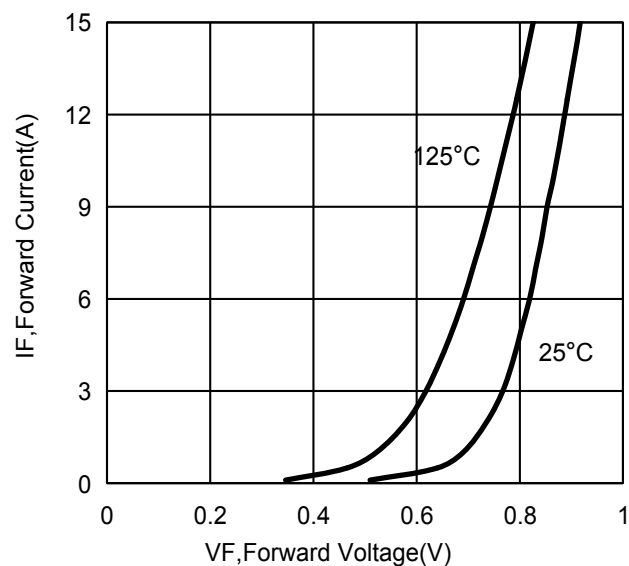


Fig2. Typical Current Derating Curve, Per Element

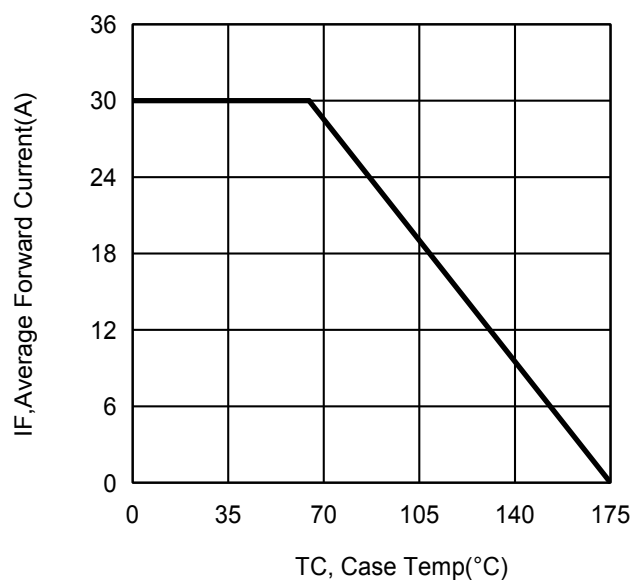


Fig3. Typical Reverse Current and Reverse Voltage

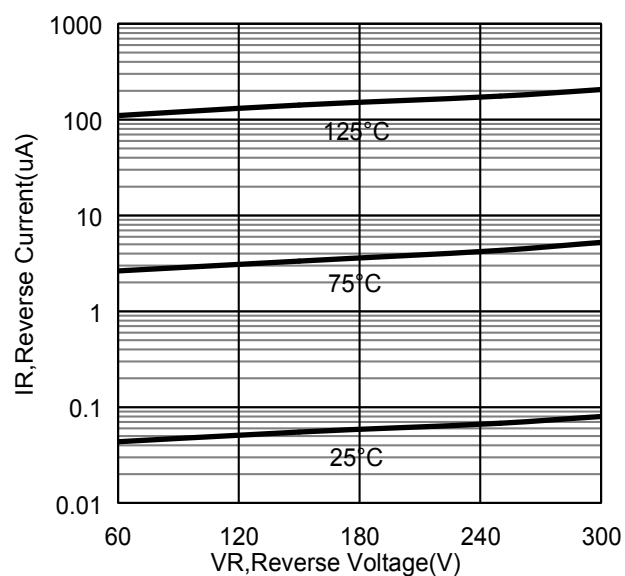
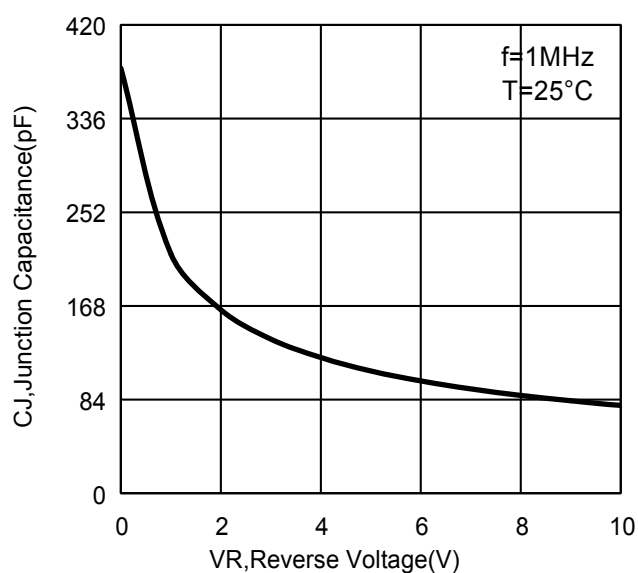
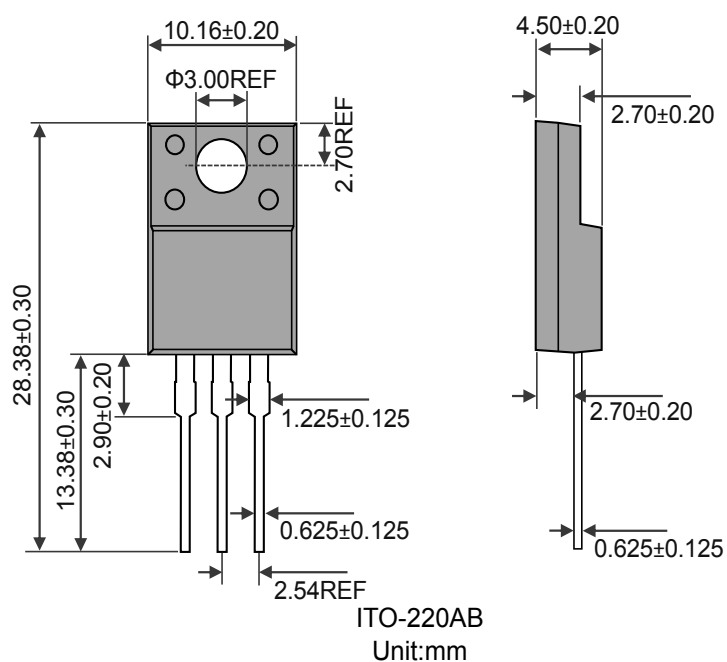


Fig4. Typical Junction Capacitance and Reverse Voltage

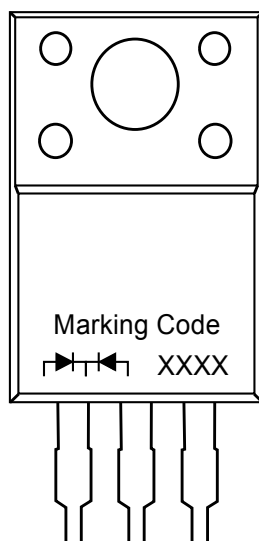




Package Outline Dimensions



Marking Information



“Marking Code”= The Following
“XXXX”= Date Code Marking

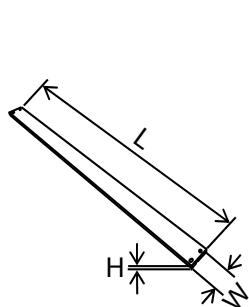
Marking Code	Part Number
MBR30H300F	MBR30H300FCT
	MBR30H300FCT-HF



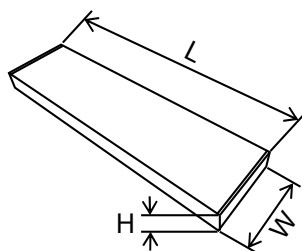
Packing Information

Packaging	Part Number	Quantity(pcs)	Size(mm)
Tube	Tube	50	L534×W33×H7
	Inner Box	1000	L560×W150×H40
	Outer Box	5000	L570×W235×H175

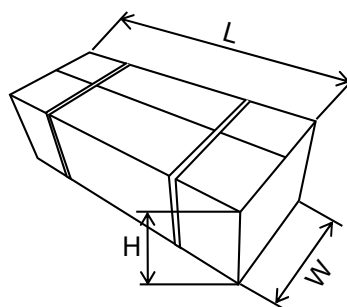
Packaging:Tube



Tube



Tube Inner Box



Tube Outer Box