

40.0A 150V Schottky Barrier Diode

Product Character

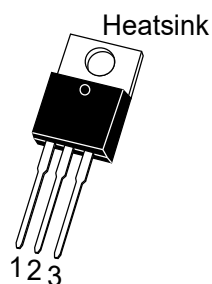
- Multilayer Metal -Silicon Potential Structure.
- Low Leakage Current.
- High Current Capability, High Efficiency.
- High Junction Temperature Capability.
- RoHs Product.

Primary Use

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

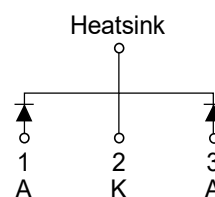
Summarize

- MBR40150CT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.



Package:TO-220AB
MBR40150CT
MBR40150CT-HF
HF=Halogen Free

Equivalent Circuit



Absolute Maximum Ratings

Item	Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage	V_{RRM}	150	V
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	I_{FAV}	40	A
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	I_{FSM}	450×2	A
Operating Junction Temperature	T_J	-40~150	°C
Storage Temperature	T_{STG}	-40~150	°C
Typical Thermal Resistance(per leg)	Package=TO-220AB $R_{\theta JC}$	2	°C/W

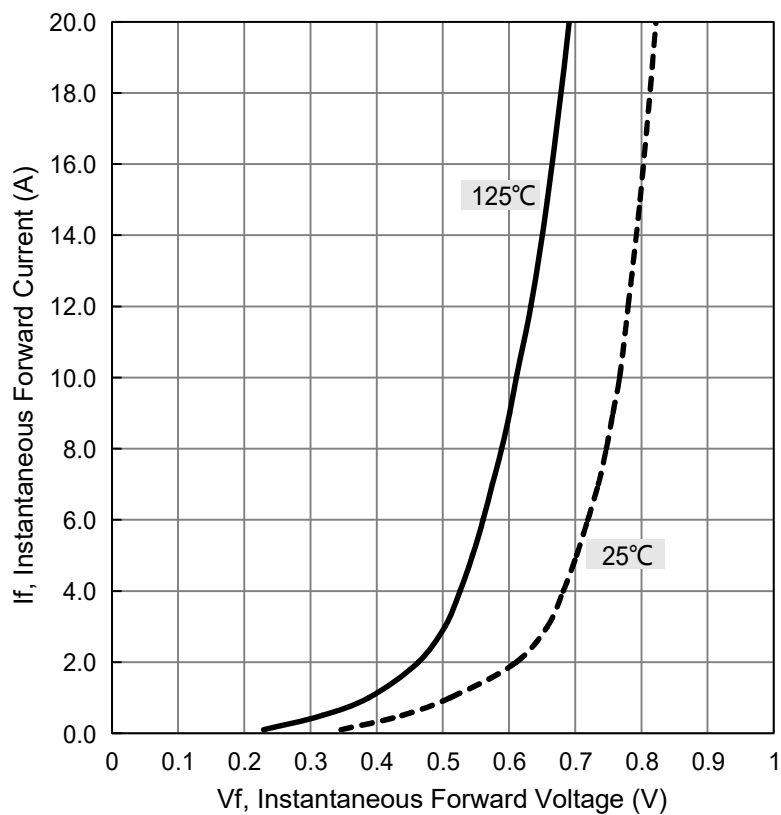
Electrical Characteristics

Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
V_B	$T_J = 25^{\circ}C$	$I_R = 1mA$	150	---	---	V
I_R	$T_J = 25^{\circ}C$	$VR = 150V$	---	---	0.01	mA
	$T_J = 125^{\circ}C$	$VR = 150V$	---	---	15.00	mA
V_F	$T_J = 25^{\circ}C$	$I_F = 20A$ ($I_{FAV} = 20A \times 2$)	---	0.82	0.9	V
	$T_J = 125^{\circ}C$		---	---	0.8	V

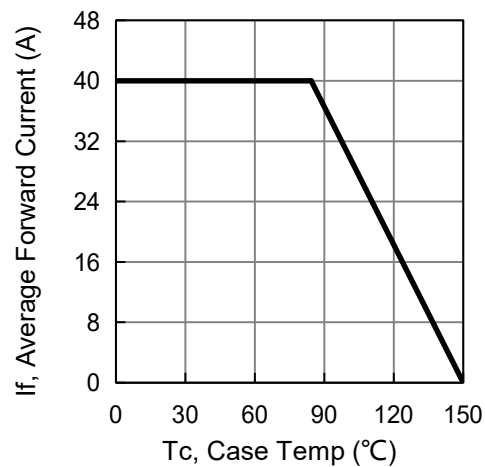


Characteristic Curves

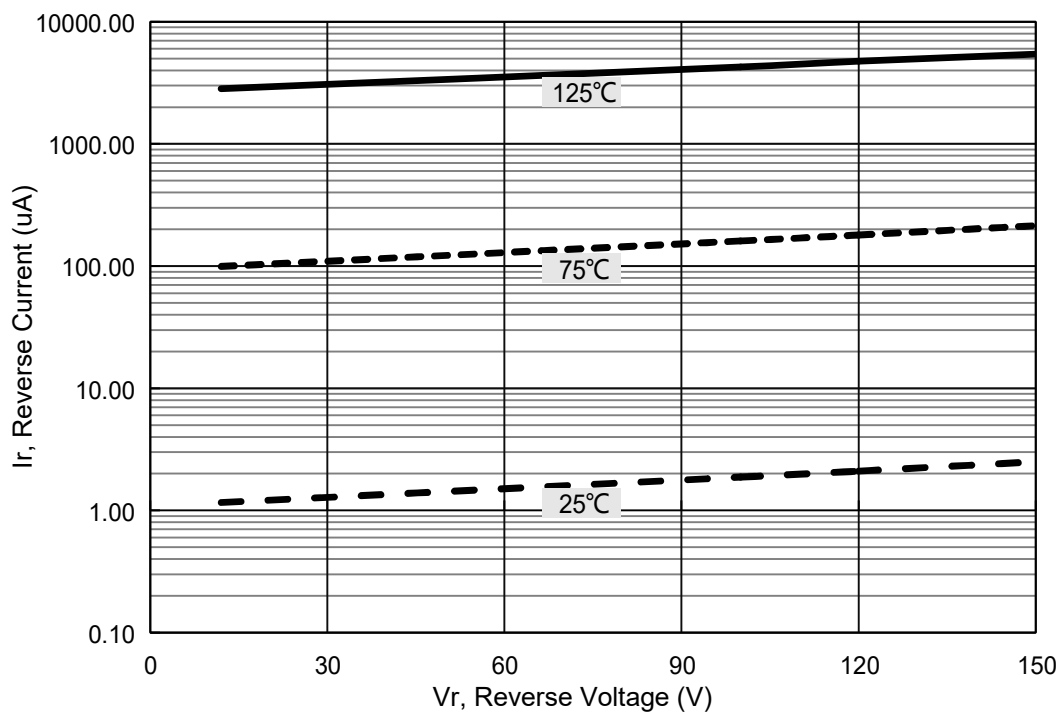
The forward voltage and forward current curve



Current derating curve, per element

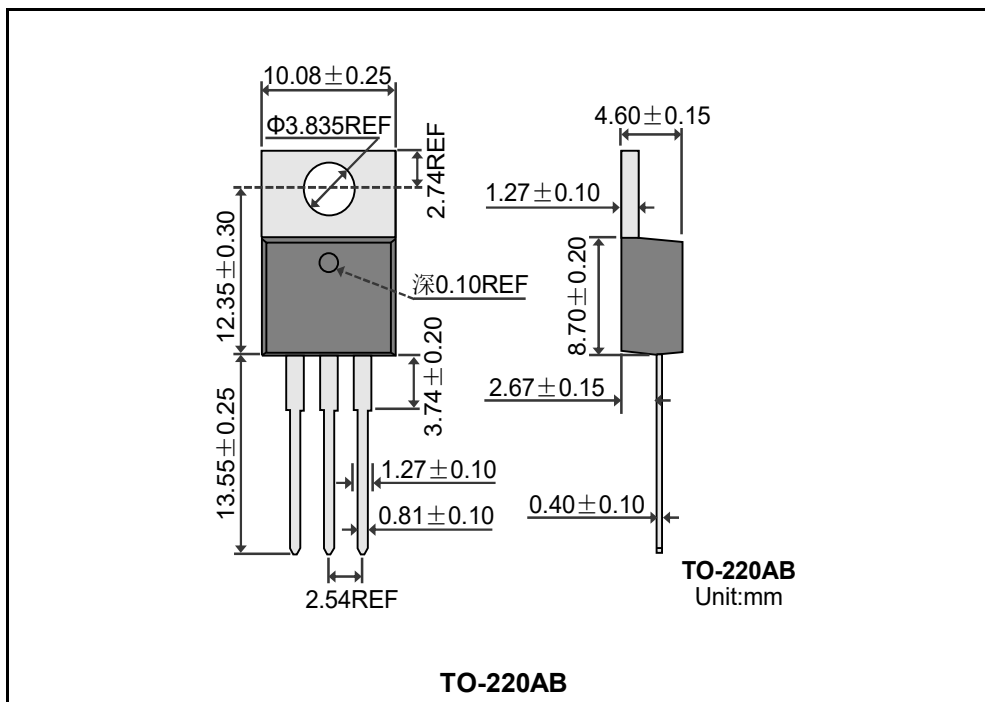


The reverse leak current and the reverse voltage (single-device) curve.

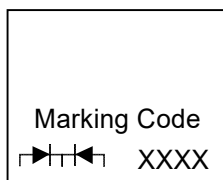




Package Outline Dimensions



Marking Information



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

Package	Marking Code	Part Number
TO-220AB	MBR40150	MBR40150CT
		MBR40150CT-HF

Packing Information

Packaging	Package	Part Number	Quantity	Size
Tube	TO-220AB	Tube	50 pieces	530*33*7mm
		Inner Box	1000 pieces	558*150*40mm
		Outer Box	5000 pieces	570*235*170mm