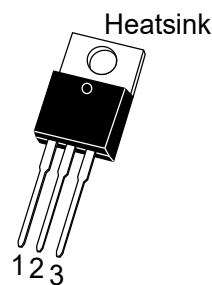


Product Character

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

Summarize

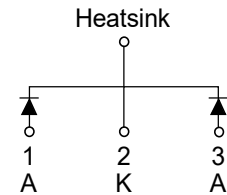
- EBR40L45CT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.



Primary Use

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

Equivalent Circuit



Package:TO-220AB

EBR40L45CT

EBR40L45CT-HF

HF=Halogen Free

Absolute Maximum Ratings

Item	Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage	V_{RRM}	45	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}	220×2	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

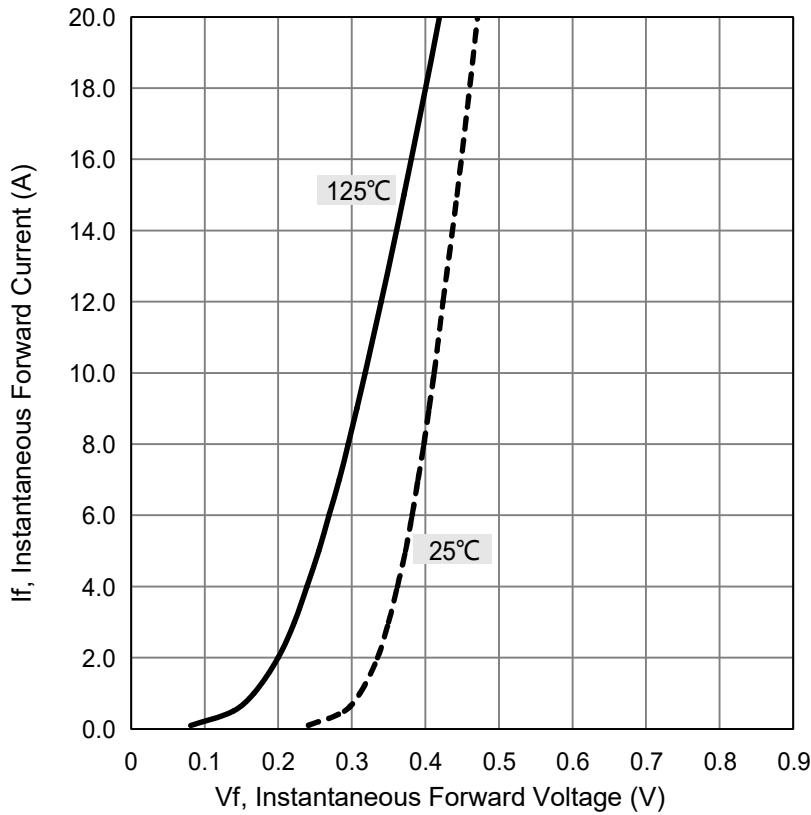
Electricity Character Per Diode($T_J=25^\circ\text{C}$ unless otherwise specified)

Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
V_B	$T_J = 25^\circ\text{C}$	$I_R = 1\text{mA}$	45	---	---	V
I_R	$T_J = 25^\circ\text{C}$	$V_R = 45\text{V}$	---	---	0.20	mA
	$T_J = 100^\circ\text{C}$	$V_R = 45\text{V}$	---	---	15.00	mA
V_F	$T_J = 25^\circ\text{C}$	$I_F = 20\text{A}$ ($I_{FAV} = 20\text{A} \times 2$)	---	0.47	0.55	V
	$T_J = 125^\circ\text{C}$		---	---	0.5	V

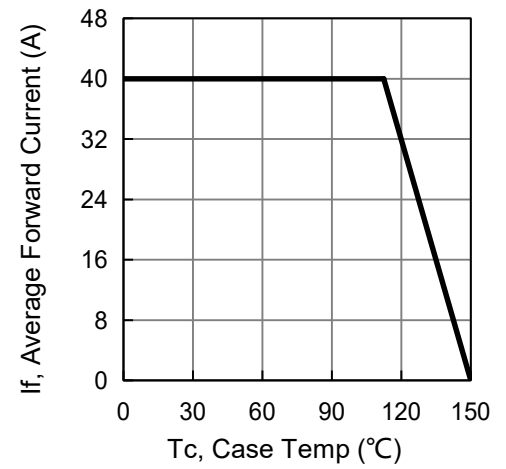


Characteristic Curves

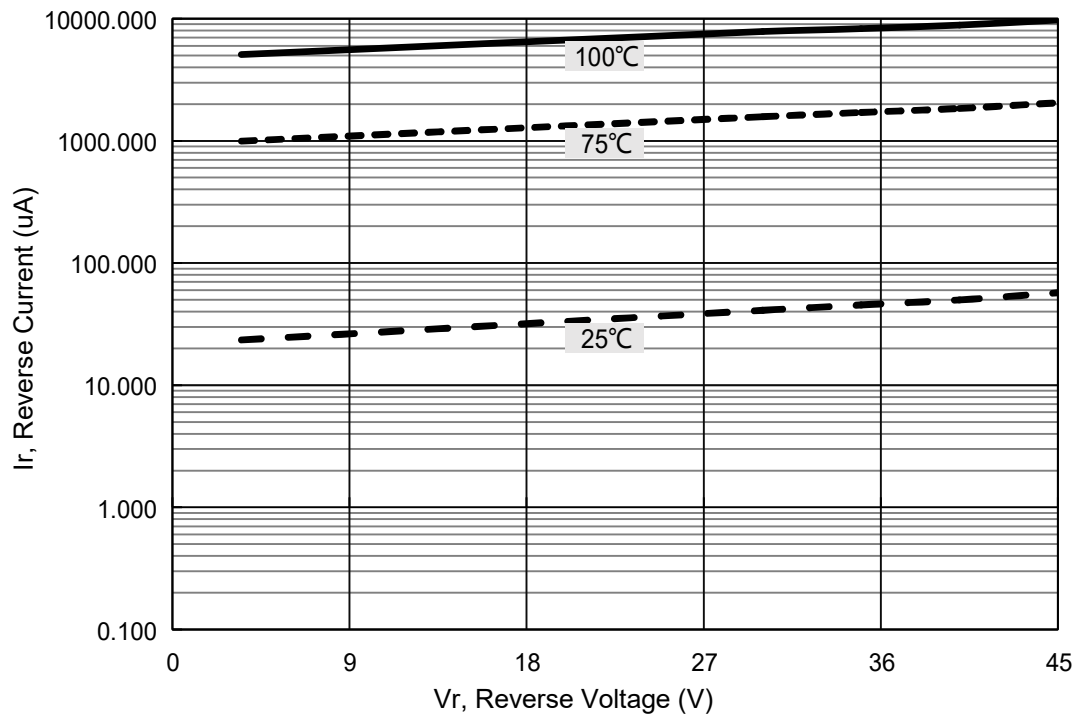
The forward voltage and forward current curve



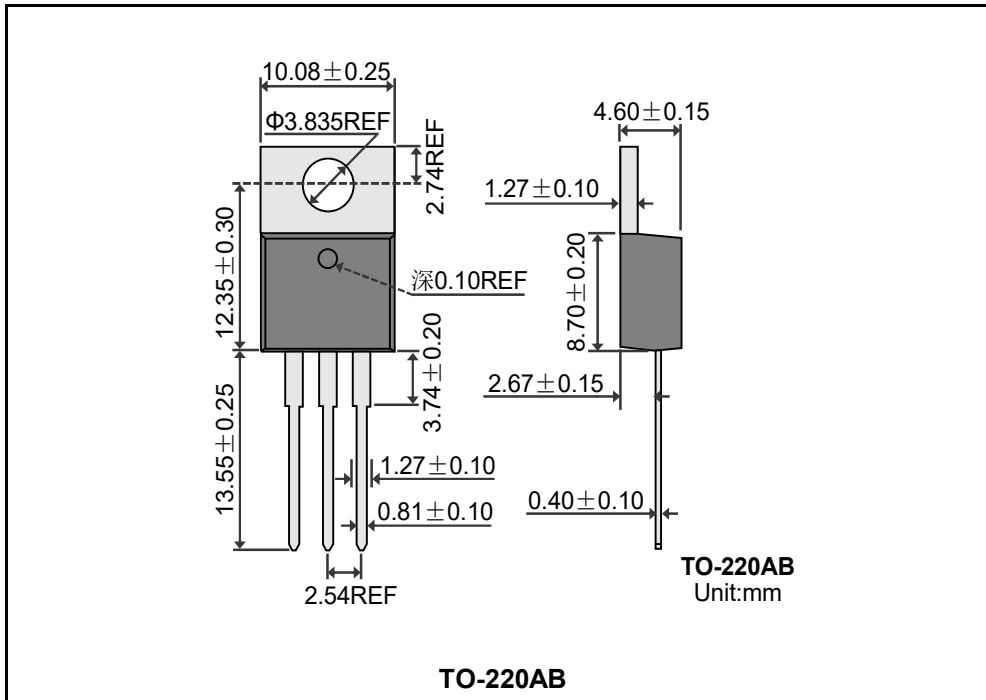
Current derating curve, per element



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



Package Outline Dimensions



Marking Information



“MHCHXM”= Product Logo
“Marking Code”= The Following
“XXXX”= Date Code Marking

Package	Marking Code	Part Number
TO-220AB	EBR40L45	EBR40L45CT
		EBR40L45CT-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

Notice:

Jiangsu Mhchxm Electronics Technology Co.Ltd.,have the right to modify the specification revision, all information are subject to change without notice.

