



Productor Character

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

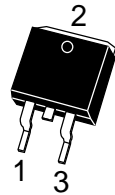
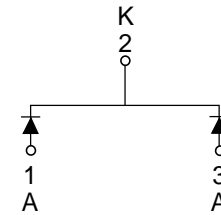
Primary Use

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

Summarize

- MBRT20100CD Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Equivalent Circuit



Package:TO-263-2L
MBRT20100CD
MBRT20100CD-HF
 HF=Halogen Free

Absolute Maximum Ratings

Item	Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage	V_{RRM}	100	V
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	I_{FAV}	20	A
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	I_{FSM}	260×2	A
Operating Junction Temperature	T_J	-40~150	°C
Storage Temperature	T_{STG}	-40~150	°C
Typical Thermal Resistance(per leg)	Package=TO-263-2L	$R_{\theta JC}$	2 °C/W

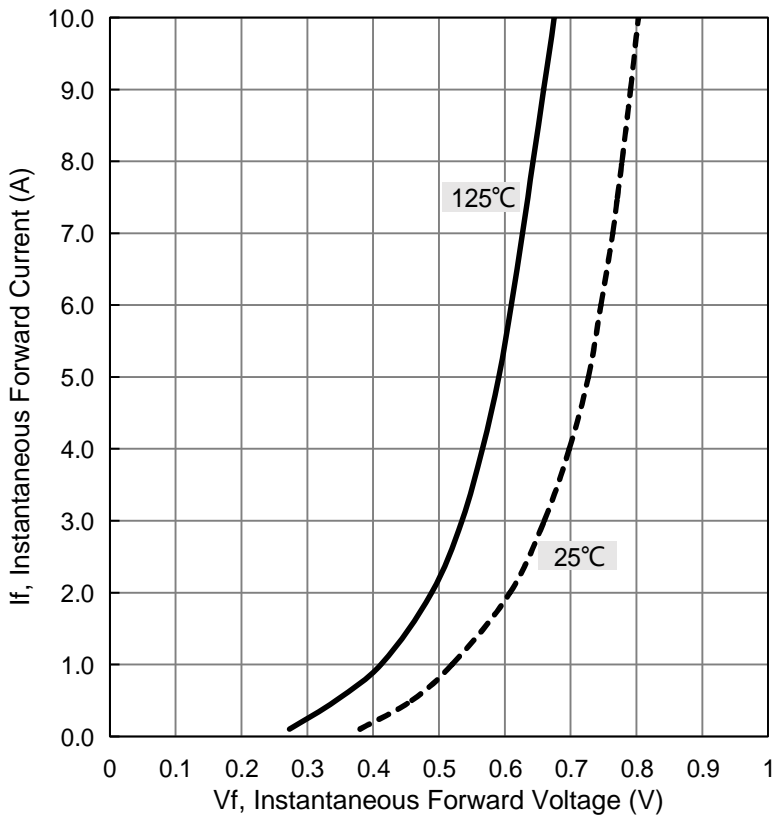
Electricity Character

Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
V_B	$T_J = 25^\circ C$	$I_R = 1mA$	100	---	---	V
I_R	$T_J = 25^\circ C$	$VR = 100V$	---	---	0.01	mA
	$T_J = 125^\circ C$	$VR = 100V$	---	---	10.00	mA
V_F	$T_J = 25^\circ C$	$I_F = 10A$ ($I_{FAV} = 10A \times 2$)	---	0.8	0.85	V
	$T_J = 125^\circ C$		---	---	0.75	V

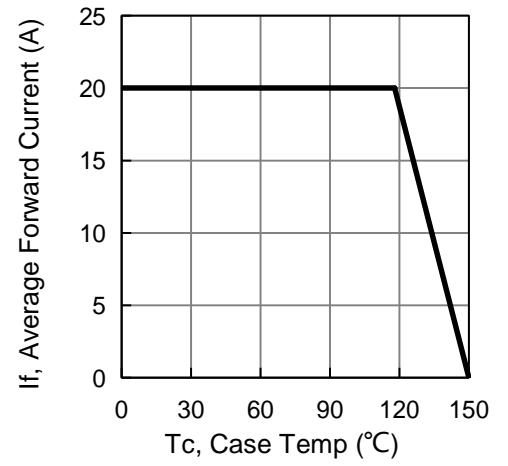


Characteristic Curves

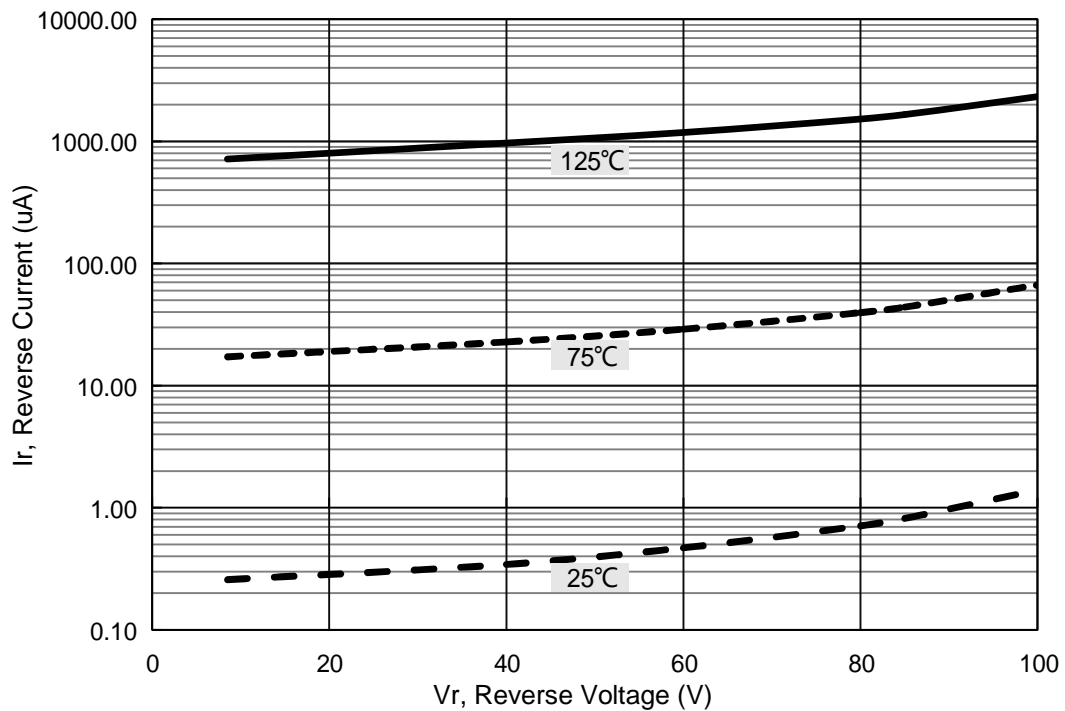
The forward voltage and forward current curve



Current derating curve, per element

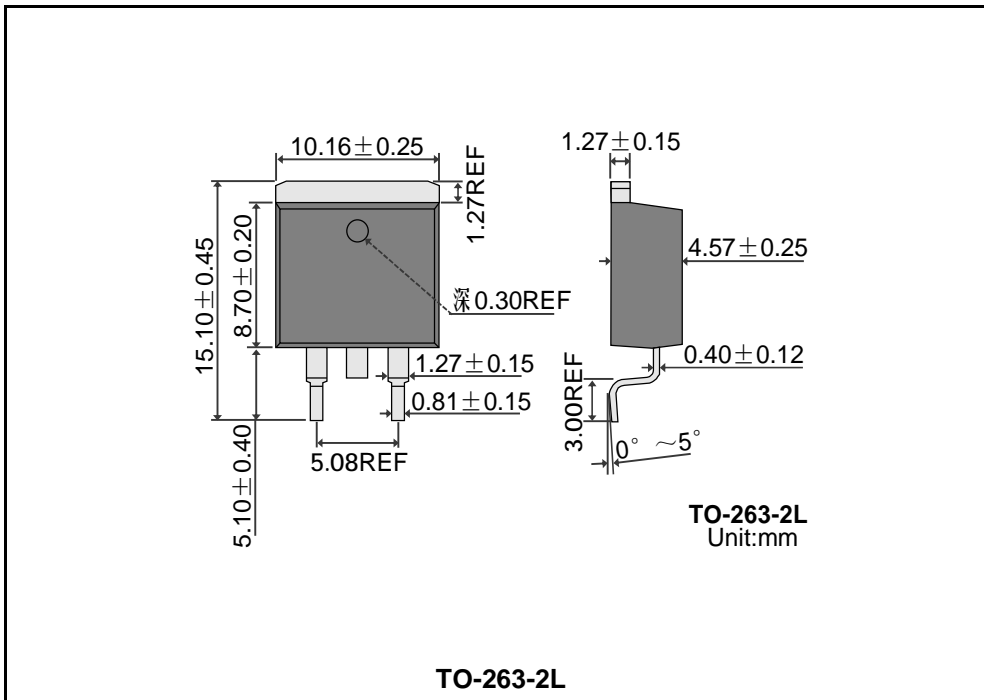


The reverse leak current and the reverse voltage (single-device) curve.

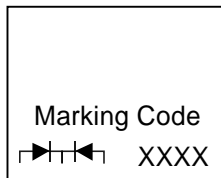




Package Outline Dimensions



Marking Information



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

Package	Marking Code	Part Number
TO-263-2L	MBRT20100CD	MBRT20100CD
		MBRT20100CD-HF

Packing Information

Packaging	Package	Part Number	Quantity	Size
Tube	TO-263-2L	Tube	50 pieces	530*33*7mm
		Inner Box	1000 pieces	558*150*40mm
		Outer Box	5000 pieces	570*235*170mm
Reel	TO-263-2L	Reel	800 pieces	330*30mm
		Inner Box	800 pieces	345*345*35mm
		Outer Box	8000 pieces	375*375*350mm