

60A 300V Schottky Barrier Diode

Product Character

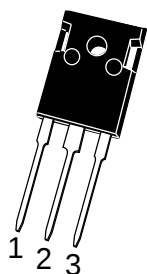
- Multilayer Metal -Silicon Potential Structure.
- Low Leakage Current.
- High Current Capability, High Efficiency.
- High Junction Temperature Capability.
- RoHs Product.

Primary Use

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

Summarize

- MBR60300PT Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.



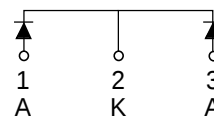
Package:TO-247AB

MBR60300PT

MBR60300PT-HF

HF=Halogen Free

Equivalent Circuit



Absolute Maximum Ratings

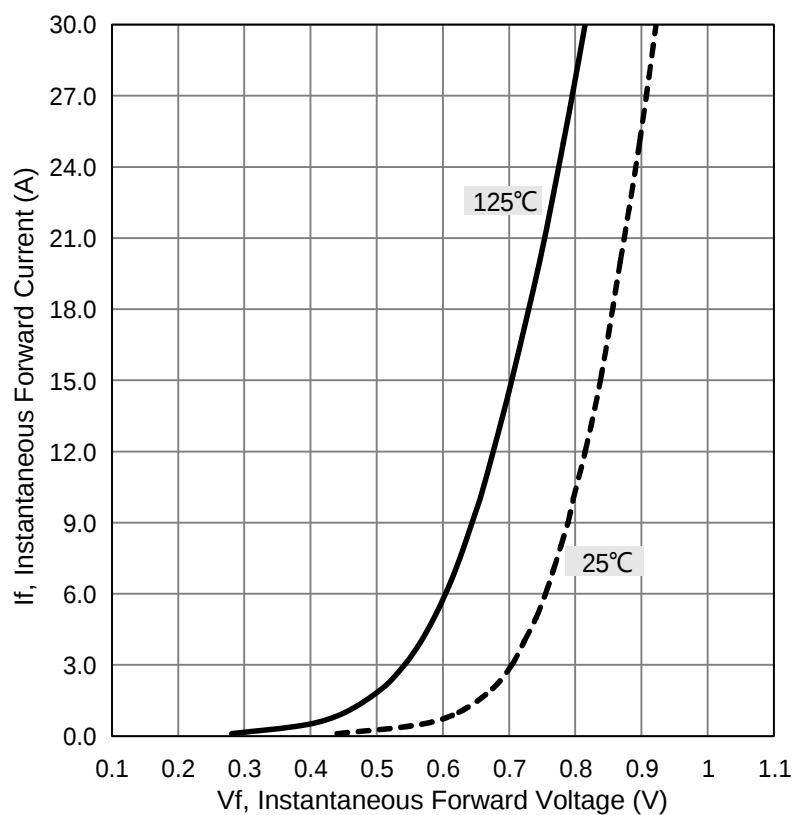
Item	Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage	V_{RRM}	300	V
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	I_{FAV}	60	A
Reverse Recovery Time($I_F=0.5A$ $I_R=1.0A$ $I_{REC}=0.25A$)	T_{RR}	≤ 35	nS
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	I_{FSM}	360×2	A
Operating Junction Temperature	T_J	$-40 \sim 175$	$^{\circ}C$
Storage Temperature	T_{STG}	$-40 \sim 175$	$^{\circ}C$
Typical Thermal Resistance(per leg)	Package=TO-247AB $R_{\theta JC}$	0.5	$^{\circ}C/W$

Electrical Characteristics

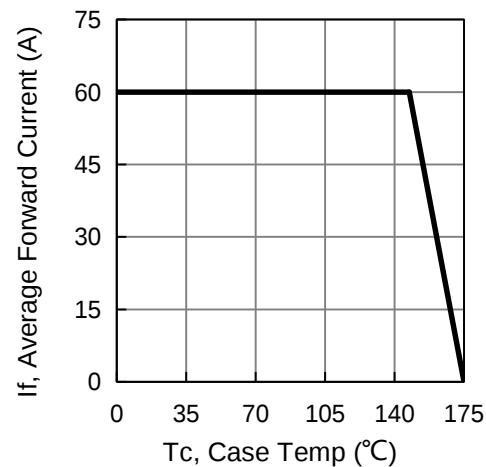
Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
V_B	$T_J = 25^{\circ}C$	$I_R = 100\mu A$	300	---	---	V
I_R	$T_J = 25^{\circ}C$	$VR = 300V$	---	---	0.01	mA
	$T_J = 125^{\circ}C$	$VR = 300V$	---	---	2.00	mA
V_F	$T_J = 25^{\circ}C$	$I_F = 30A$	---	0.92	0.95	V
	$T_J = 125^{\circ}C$	$(I_{FAV} = 30A \times 2)$	---	---	0.9	V

Characteristic Curves

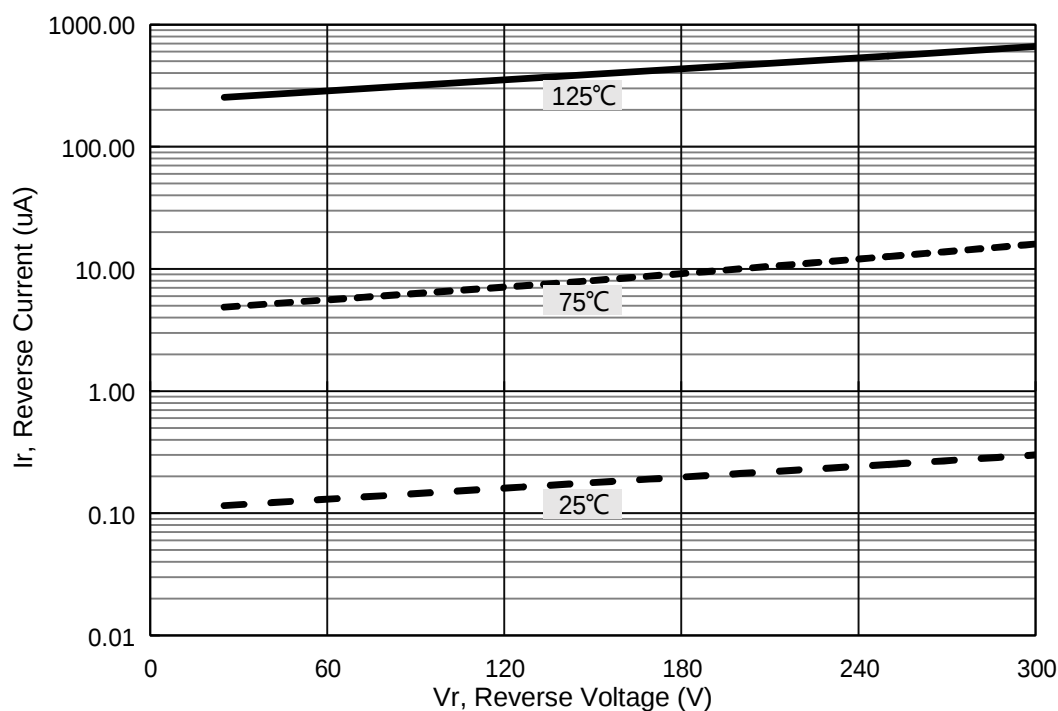
The forward voltage and forward current curve



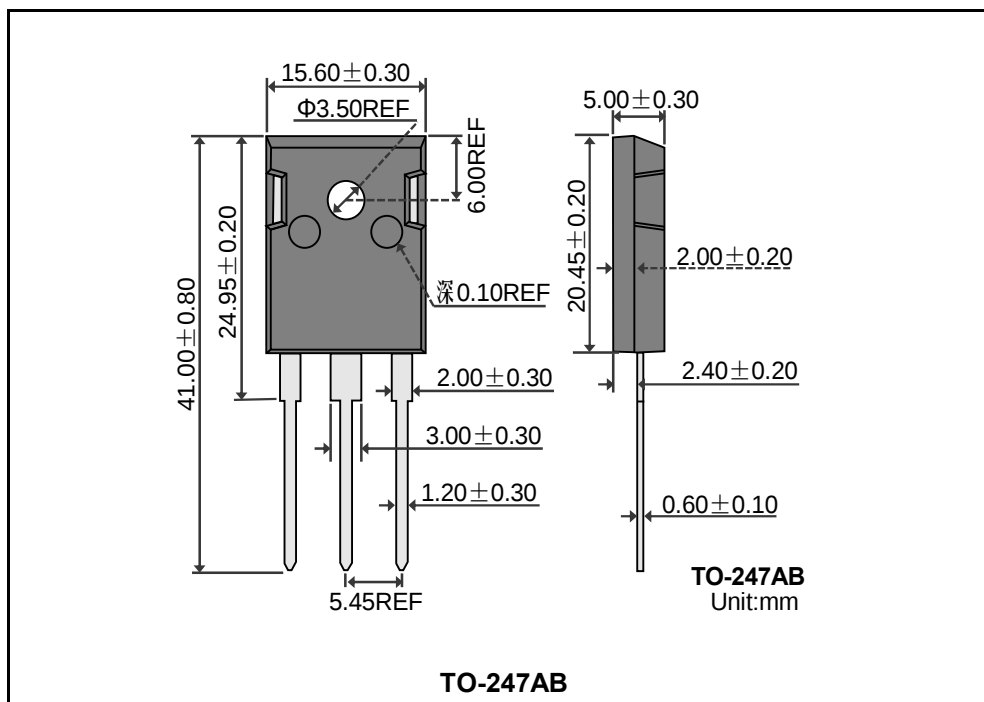
Current derating curve, per element



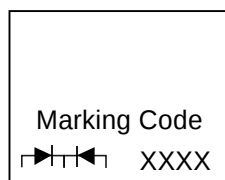
The reverse leak current and the reverse voltage (single-device) curve.



Package Outline Dimensions



Marking Information



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

Package	Marking Code	Part Number
TO-247AB	MBR60300PT	MBR60300PT
		MBR60300PT-HF

Packing Information

Packaging	Package	Part Number	Quantity	Size
Tube	TO-247AB	Tube	30 pieces	495*45*7mm
		Inner Box	360 pieces	520*115*60mm
		Outer Box	1800 pieces	550*325*135mm