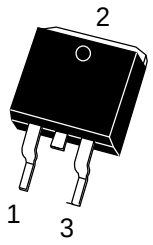
MBR40U120CD

Schottky Barrier Rectifiers

Productor Character

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

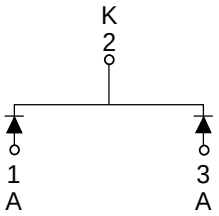
TO-263



Summarize

- MBR40U120CD Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Equivalent Circuit



Primary Use

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

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

Item		Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage		V_{RRM}	120	V
Average Rectified Forward Current(Rated VR-20Khz Square Wave)-50% duty cycle	Per Device	I_{FAV}	40	A
	Per Diode		20	
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	Per Diode	I_{FSM}	240	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 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	120	—	—	V
I_R	Tj=25°C,VR=120V	—	—	20	μA
	Tj=100°C,VR=120V	—	—	10	mA
V_F	Tj=25°C,IF=20A	—	0.8	0.83	V
	Tj=125°C,IF=20A	—	—	0.75	V
C_J	Tj=25°C,VR=4V,f=1MHz	—	1300	—	pF

Typical Characteristics Curves

Fig1.Typical Forward Current and Forward Voltage

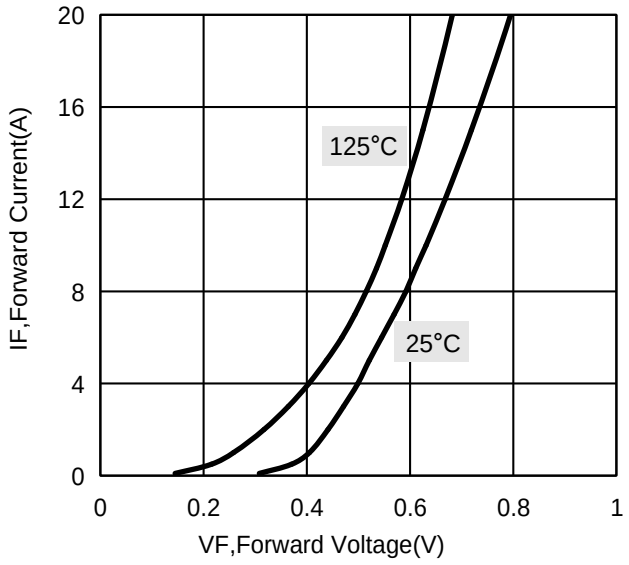


Fig2.Typical Current Derating Curve,Perelement

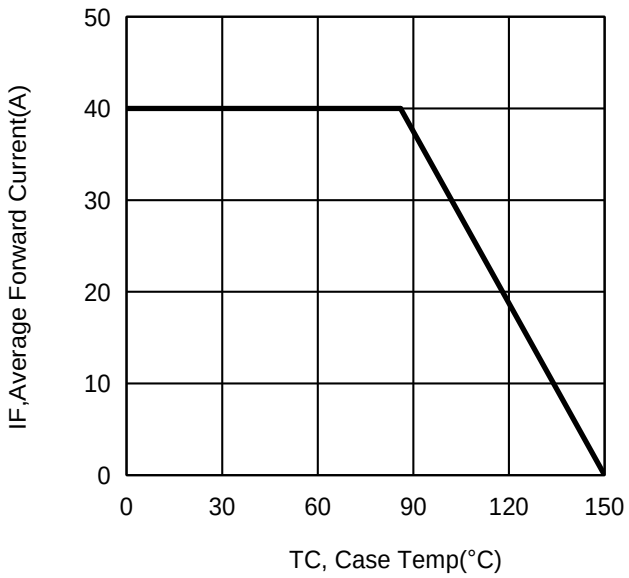


Fig3.Typical Reverse Current and Reverse Voltage

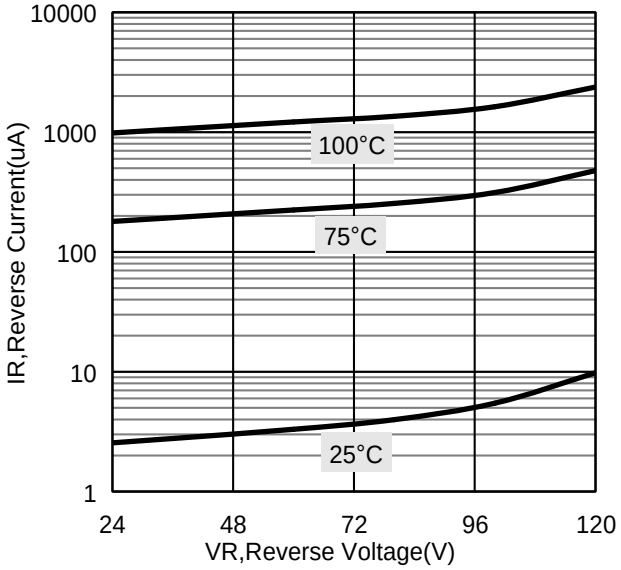
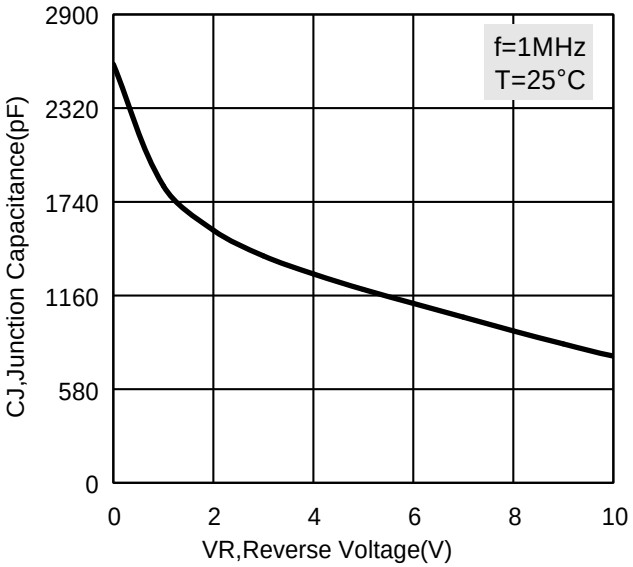
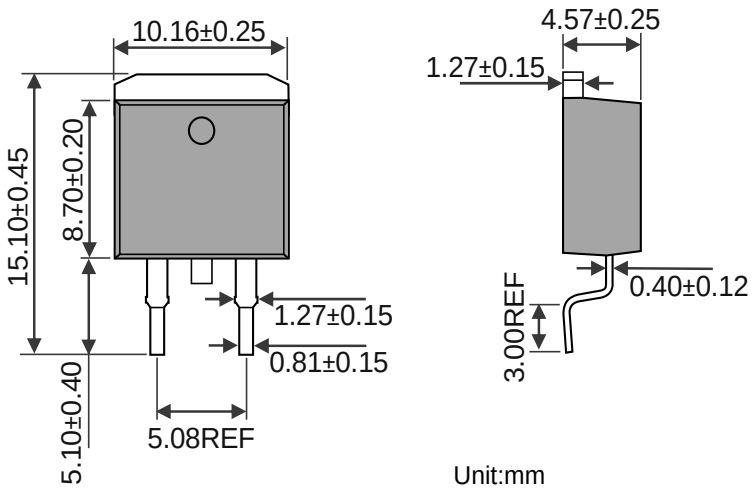


Fig4.Typical Junction Capacitance and Reverse Voltage

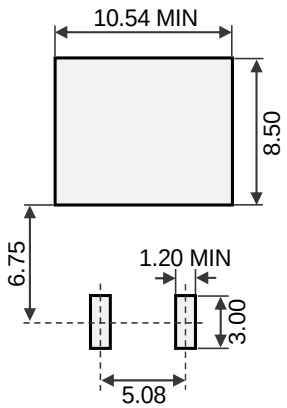


Package Outline Dimensions



Unit:mm

Suggested Solder Pad Layout



Unnoted Tolerance:±0.05
Unit:mm

NOTICE

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