MBRB2030CT THRU MBRB2045CT

Surface Mount Schottky Barrier Recitifiers

Reverse Voltage - 30 to 45 Volts

Forward Current - 20.0 Amperes

Features

- Low forward voltage drop
- High current capabiliity
- High surge capability
- The plastic material carries UL recognition 94V-0

Mechanical Data

- Case: JEDEC D^2PAK molded plastic
- Polarity: As marked on the body
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

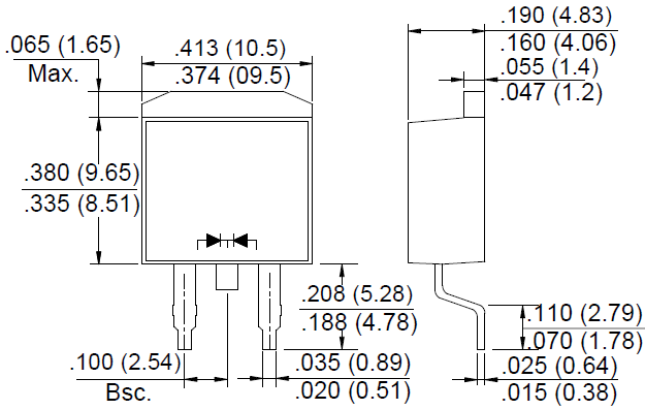
Applications

- For use in low vlotage, high frequency inverters, polarity protection applications.

D^2PAK



RoHS COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	MBRB2030CT	MBRB2040CT	MBRB2045CT	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	30	40	45	V
Maximum RMS Voltage	V_{RMS}	21	28	31.5	V
Maximum DC Blocking Voltage	V_{DC}	30	40	45	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	20.0			A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150			A
Peak Forward Voltage (Note1) IF=10A @T_J=25℃	V_F	0.65			V
IF=10A @T_J=125℃		0.57			
IF=20A @T_J=25℃		0.84			
IF=20A @T_J=125℃		0.72			
Maximum DC Reverse Current @T_J=25℃	I_R	0.1			mA
at Rated DC Blocking Voltage @T_J=125℃		15			
Typical Thermal Resistance Junction to Case（without heatsink) (Note2)	$R_{\theta JC}$	9			℃/W
Junction Temperature Range	T_J	-55 to +150			℃
Storage Temperature Range	T_{STG}	-55 to +175			℃

Notes: 1. 300us pulse width,2% duty cycle.

2. The typical data above is for reference only.

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Fig. 1 - Forward Current Derating Curve

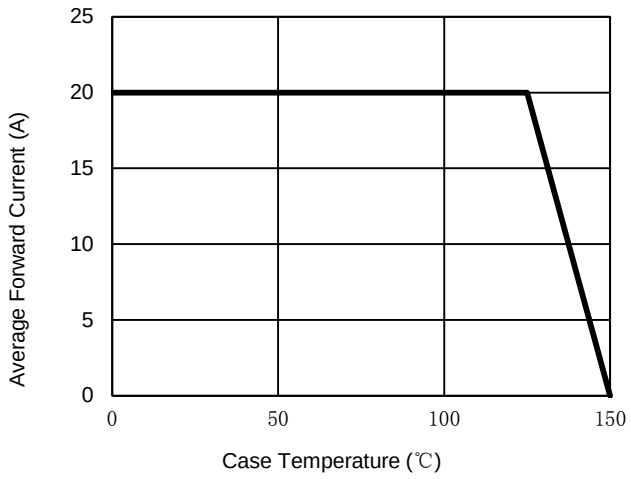


Fig. 2 - Maximum Non-Repetitive Surge Current

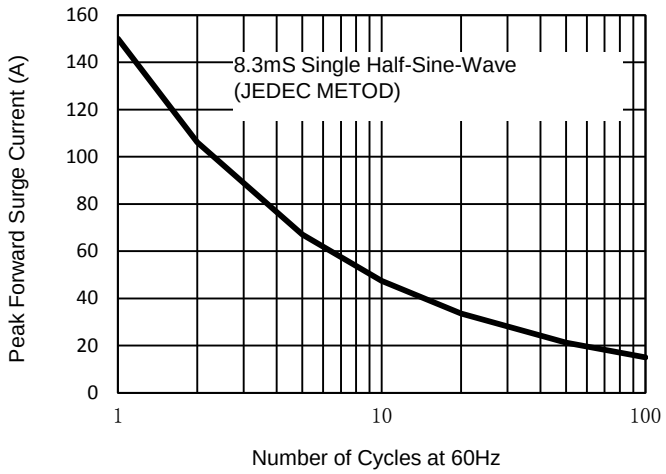


Fig. 3 - Typical Reverse Characteristics

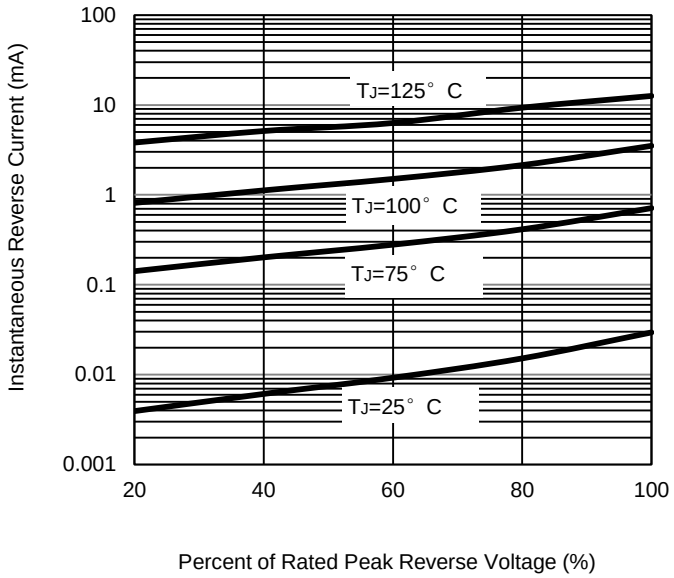
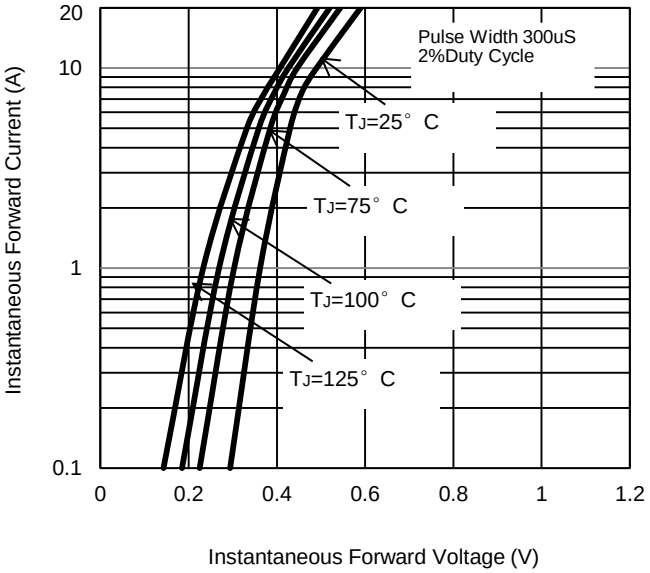


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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