MBR1630CT THRU MBR16150CT

Schottky Barrier Recitifiers

Reverse Voltage - 30 to 150 Volts
Forward Current - 16.0 Amperes

Features

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

Mechanical Data

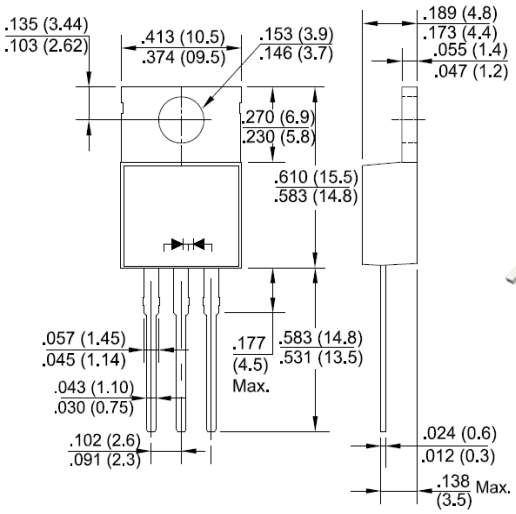
- Case: JEDEC TO-220AB molded plastic
- Polarity: As marked on the body
- Mounting position: Any

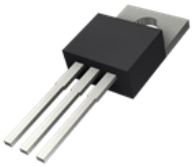
Note: Products with logo HY® or hy® are made by HY Electronic (Cayman) Limited.

Applications

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

TO-220AB





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%.

Characteristics	Symbol	MBR 1630CT	MBR 1640CT	MBR 1650CT	MBR 1660CT	MBR 1680CT	MBR 16100CT	MBR 16150CT	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V_{RMS}	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V_{DC}	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	16.0							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=8A @T_J=25℃	V_F	0.7		0.75		0.85		1.05	V
IF=8A @T_J=125℃		0.57		0.65		0.75		0.92	
IF=16A @T_J=25℃		0.72		-		0.95		-	
IF=16A @T_J=125℃		-		-		0.85		-	
Maximum DC Reverse Current @T_J=25℃	I_R	0.3				0.1			mA
at Rated DC Blocking Voltage @T_J=125℃		10				5.0			
Typical Junction Capacitance (Note2)	C_J	400				200			pF
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	3.0							℃/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. 300uS.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3. The typical data above is for reference only.

Fig. 1 - Forward Current Derating Curve

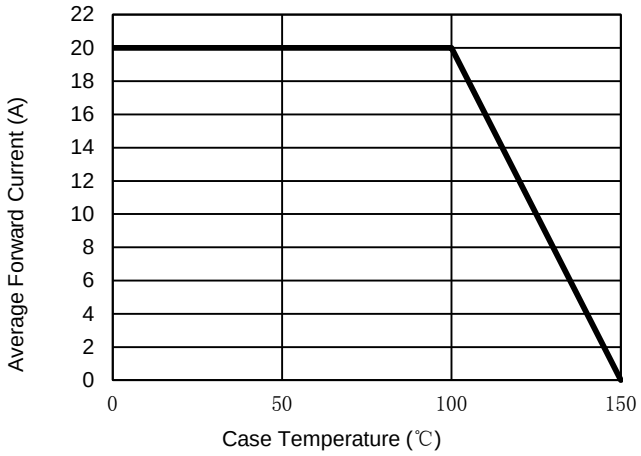


Fig. 2 - Maximum Non-Repetitive Surge Current

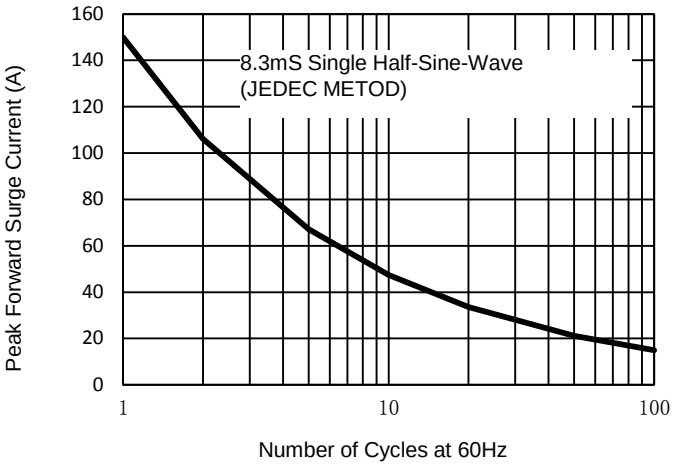


Fig. 3 - Typical Reverse Characteristics

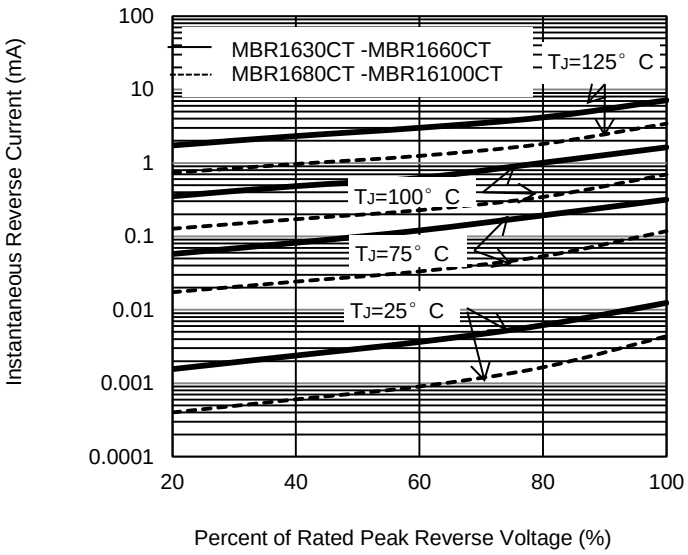


Fig. 4 - Typical Forward Characteristics

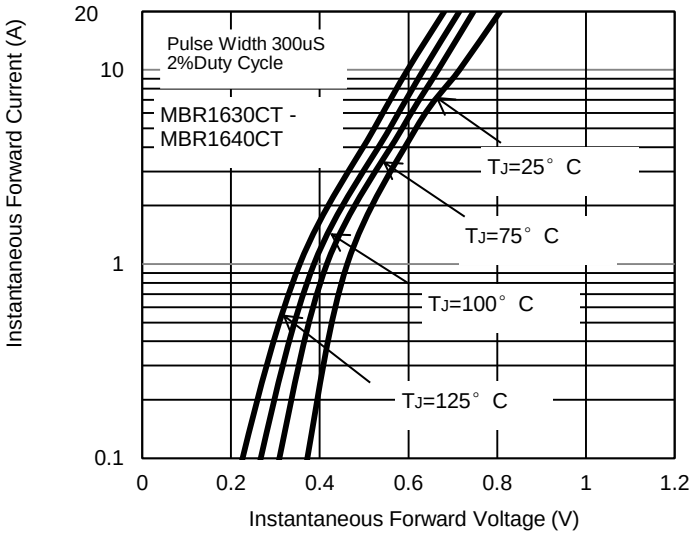


Fig. 5 - Typical Forward Characteristics

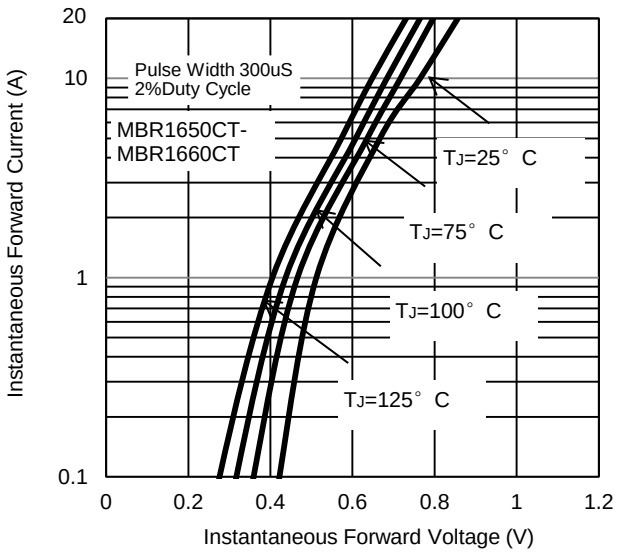
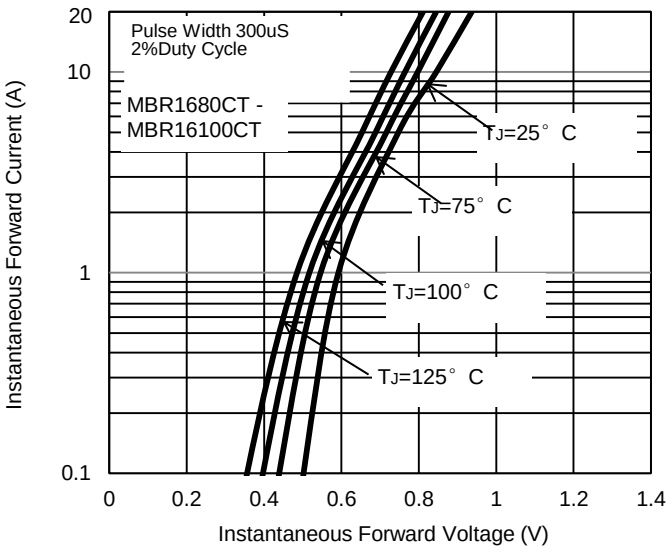


Fig. 6 - Typical Forward Characteristics



The curve above is for reference only.

Fig. 7 - Typical Forward Characteristics

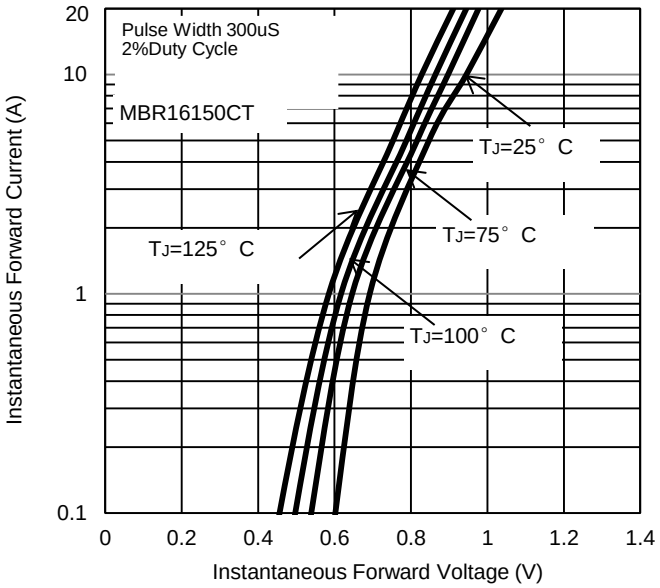
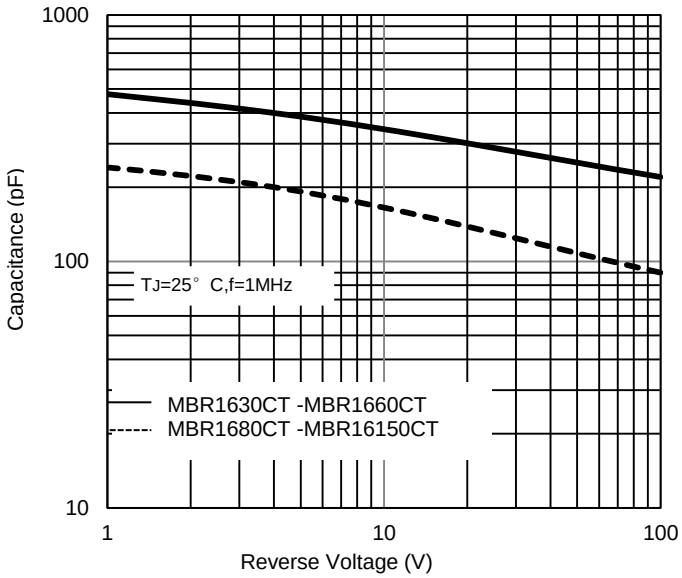


Fig. 8 - Typical Junction Capacitance



The curve above is for reference only.

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