

MBR2040XCT THRU MBR20200XCT

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage: 40 to 200V

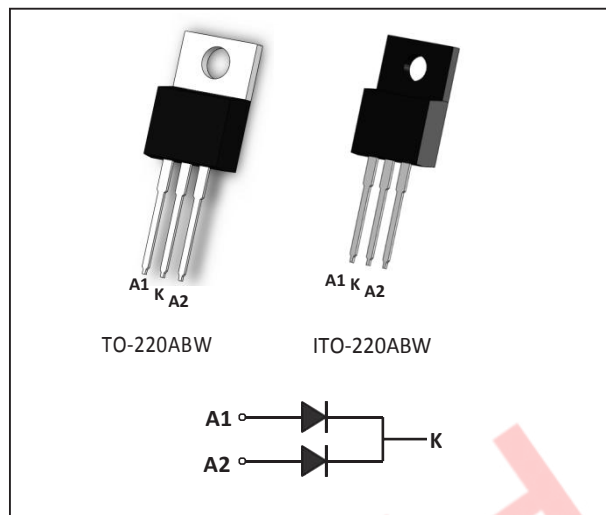
Forward Current: 20A

Features and Benefits:

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ Low power loss, high efficiency
- ◆ High surge capability
- ◆ High temperature soldering guaranteed
- ◆ Mounting position: any

Mechanical data

- ◆ Case: TO-220ABW
- ◆ Approx. Weight: 1.9g (0.067oz)
- ◆ Case: ITO-220ABW
- ◆ Approx. Weight: 2.1g (0.07oz)
- ◆ Terminals: Lead solderable per MIL-STD-202, Method 208



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

PARAMETER	TO-220W	MBR2040CT	MBR2045CT	MBR2060CT	MBR20100CT	MBR20150CT	MBR20200CT	Units
	ITO-220W	MBR2040FCT	MBR2045FCT	MBR2060FCT	MBR20100FCT	MBR20150FCT	MBR20200FCT	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	31.5	42	70	105	140	V
Maximum DC blocking Voltage	V_{DC}	40	45	60	100	150	200	V
Maximum Average Forward Rectified Current @Tc=100°C	$I_{F(AV)}$	Per diode 10 Per device 20						A
Peak Forward Surge Current, 8.3m Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150						A
Max Instantaneous Forward Voltage at 10A Per diode	V_F	0.70		0.75	0.85	0.90	0.92	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	I_R	Ta=25°C 0.1 Ta=125°C 20			0.05 20			mA
Typical Junction Capacitance @f=1MHz, 4V DC	C_j	600		400				pF
Typical Thermal Resistance	$R_{\theta JA}$	45						°C/W
Operation Junction Temperature and Storage Temperature	T_J, T_{stg}	-55 ~ +150			-55 ~ +175			°C

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

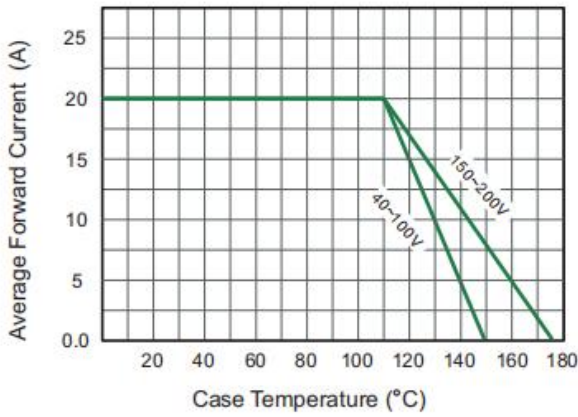


Fig.2 Typical Reverse Characteristics

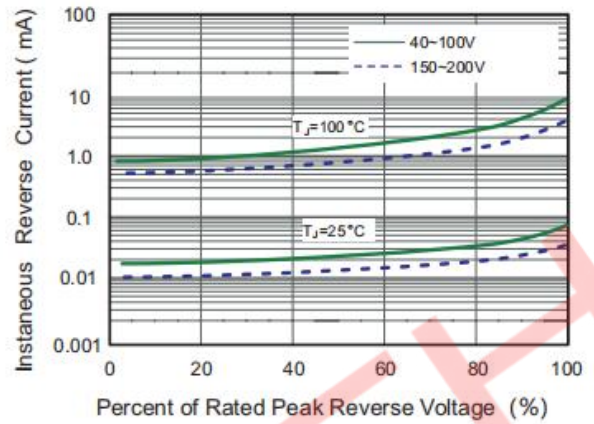


Fig.3 Typical Forward Characteristic(per leg)

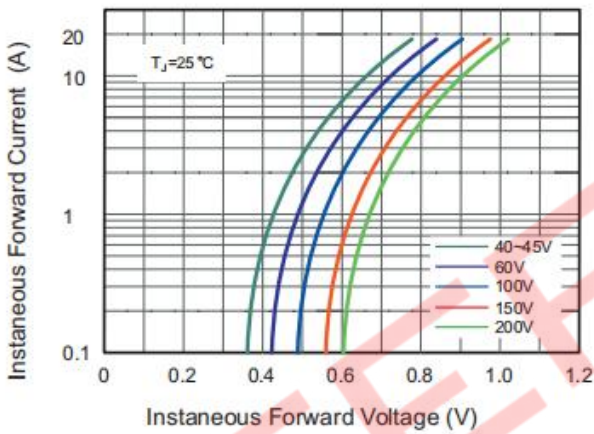


Fig.4 Typical Junction Capacitance

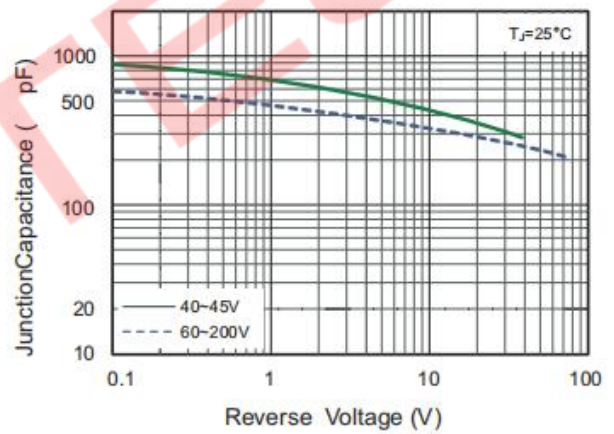


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

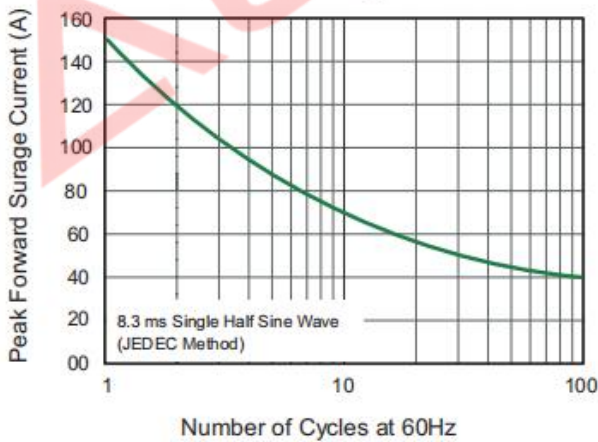
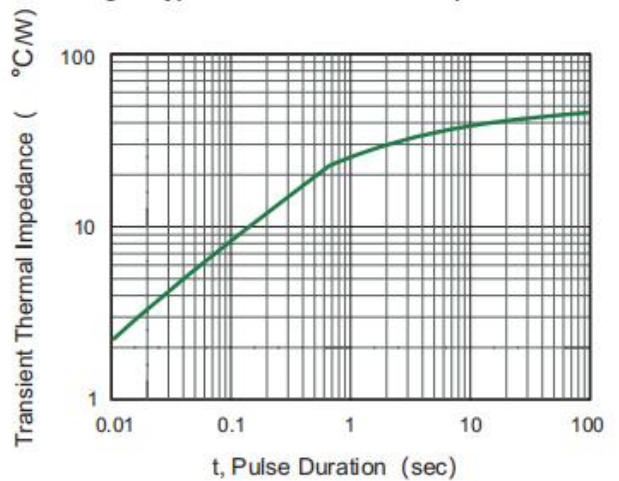


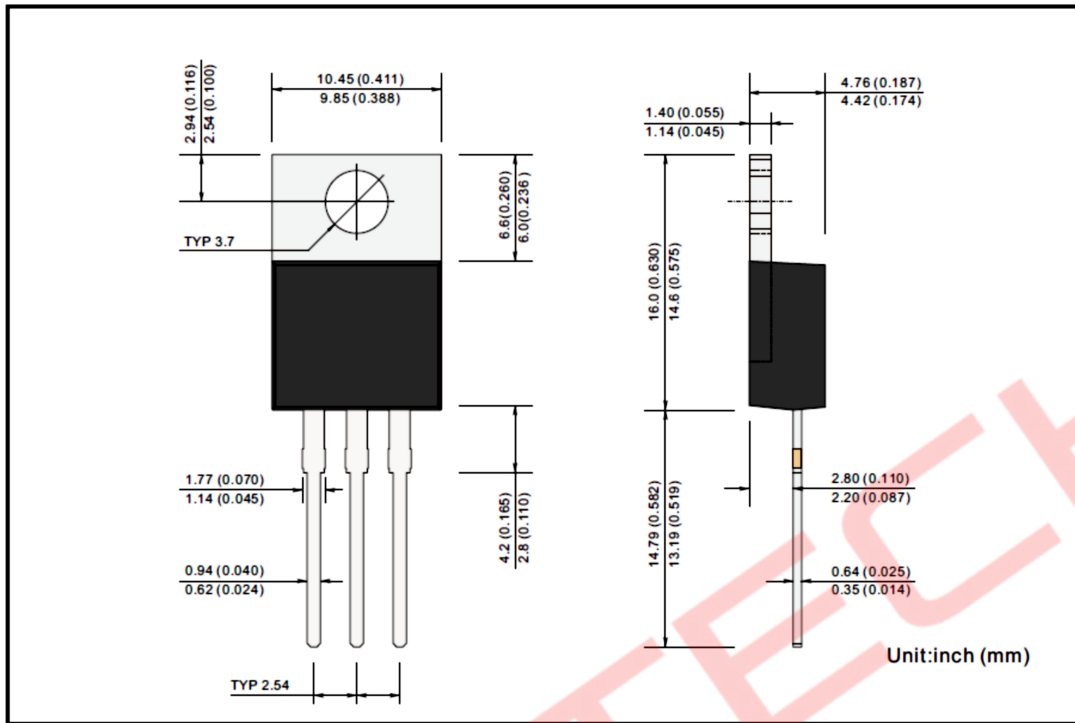
Fig.6- Typical Transient Thermal Impedance



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PACKAGE OUTLINE

TO-220ABW



ITO-220ABW

