



SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 40 to 200 V

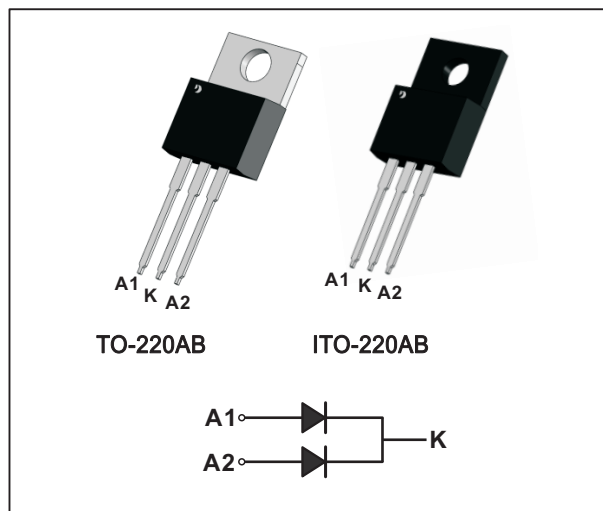
Forward Current - 40 A

FEATURES

- 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-220AB
- Approx. Weight: 1.9g (0.067oz)
- Case: ITO-220AB
- 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

CHARACTERISTICS	TO-220	MBR4040CT	MBR4045CT	MBR4060CT	MBR40100CT	MBR40150CT	MBR40200CT	Units
	ITO-220	MBR4040FCT	MBR4045FCT	MBR4060FCT	MBR40100FCT	MBR40150FCT	MBR40200FCT	
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 Per diode Per device	$I_{F(AV)}$	20 40						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) per diode	I_{FSM}	250						A
Max Instantaneous Forward Voltage at 20 A DC Per leg	V_F	0.70		0.75	0.85	0.90	0.92	V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 125^\circ\text{C}$	I_R	0.1 20			0.05 20			mA
Typical Junction Capacitance ⁽¹⁾	C_j	600		400				pF
Typical Thermal Resistance TO-220 ITO-220	$R_{\theta JC}$	2 4						°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150				-55 ~ +175		°C
Storage Temperature Range	T_{stg}	-55 ~ +150				-55 ~ +175		°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C



Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

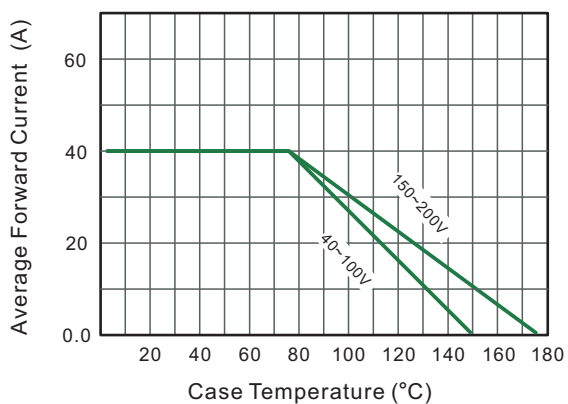


Fig.2 Typical Reverse Characteristics

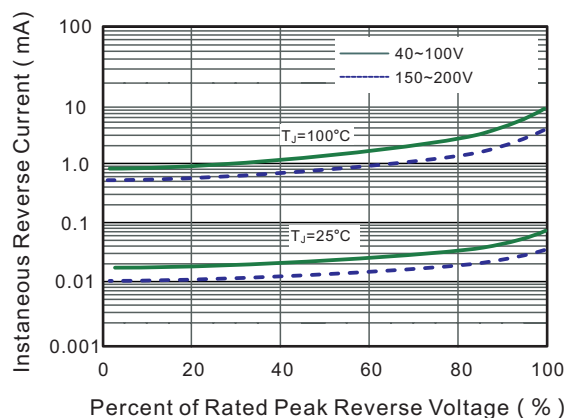


Fig.3 Typical Forward Characteristic(per leg)

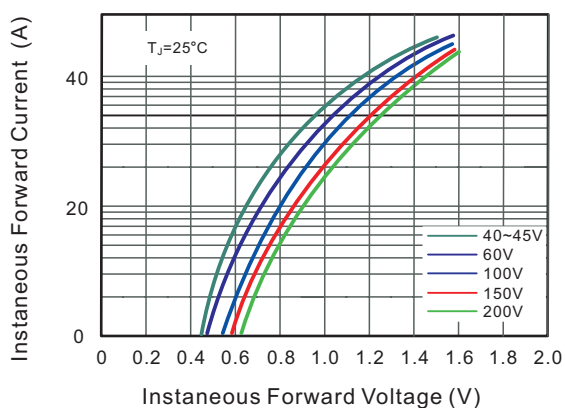


Fig.4 Typical Junction Capacitance

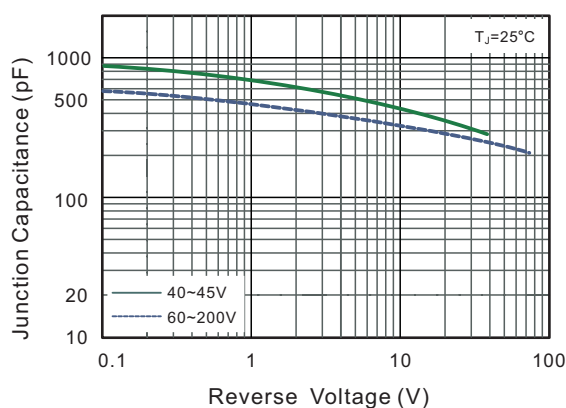


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

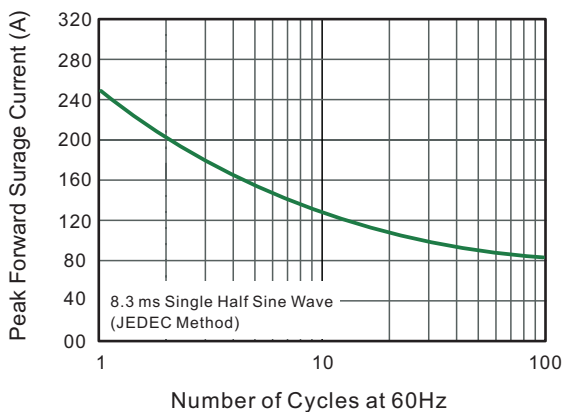
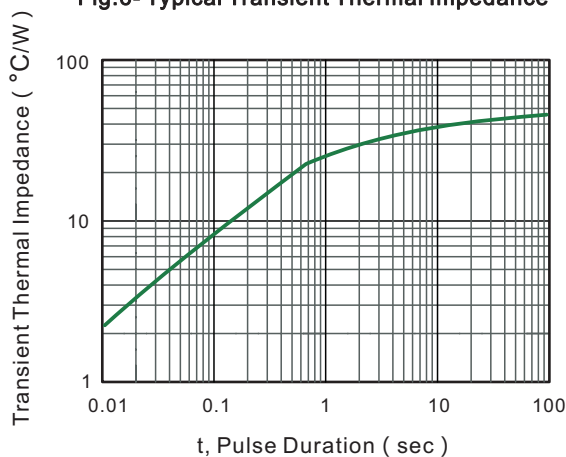


Fig.6- Typical Transient Thermal Impedance

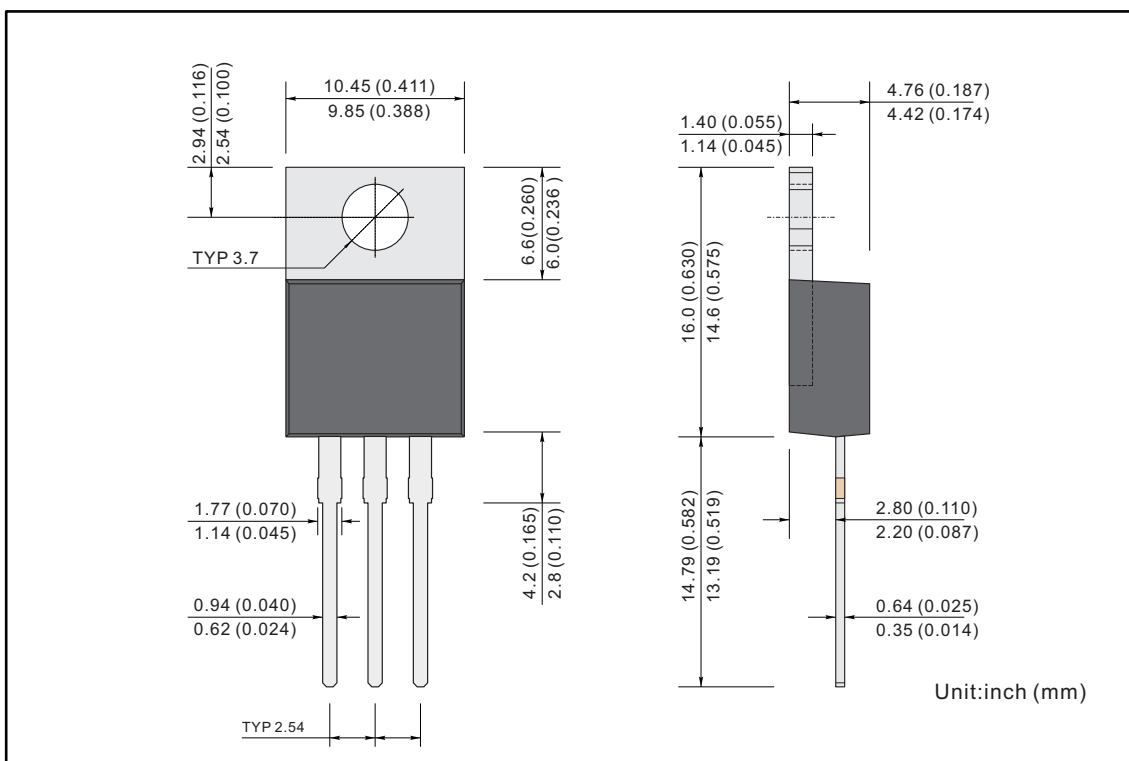




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

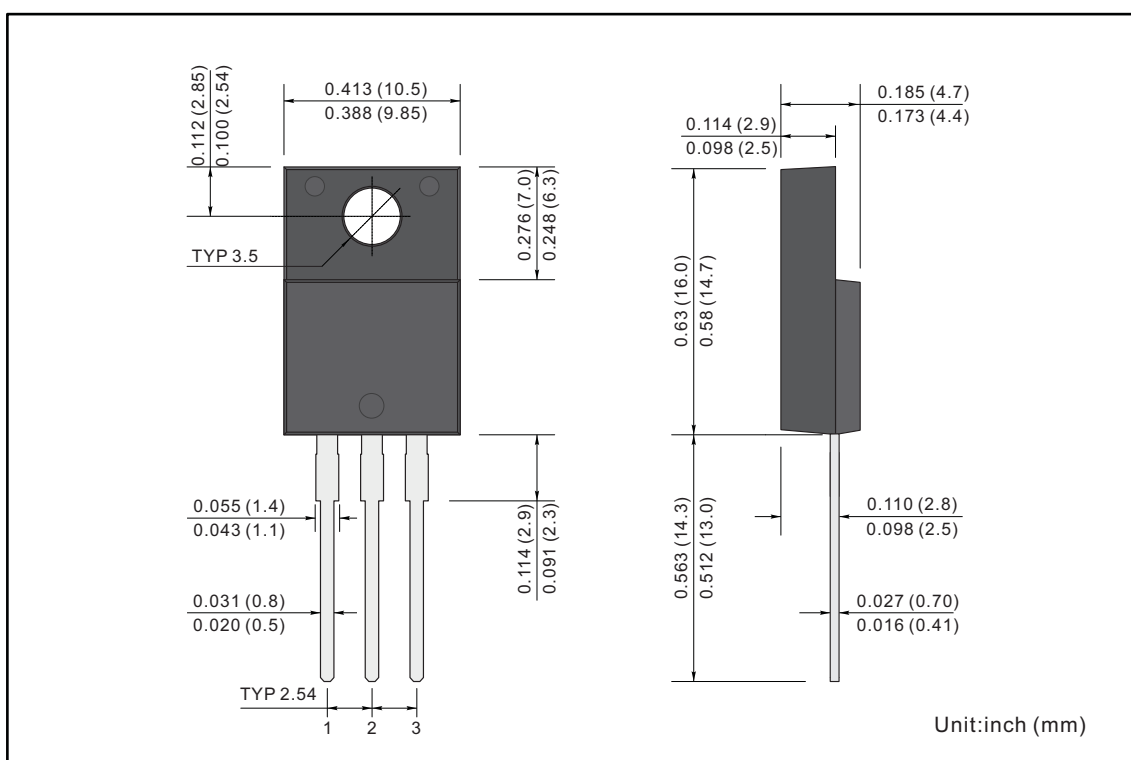
TO-220AB



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

ITO-220AB



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