



MBR4020PT THRU MBR40200PT SERIES 40.0Amp Schottky Barrier Rectifiers

FEATURES

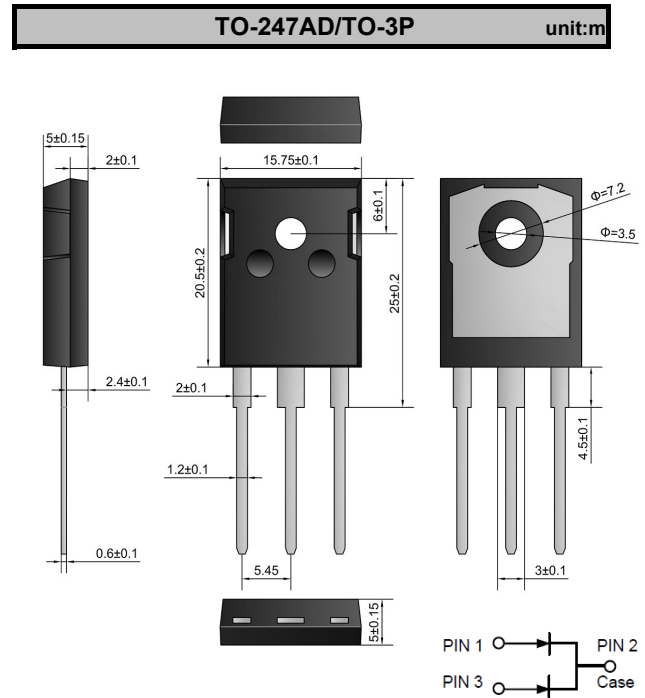
- Schottky Barrier Chip
- Guardring for Overvoltage Protection
- Low Power loss, High Efficiency
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0

MECHANICAL DATA

- Case: TO-247AD/TO-3P TYPE molder
- Terminals: Pure tin Plated, Lead free Solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Weight: 5.6 grams (approx)
- Mounting Position: Any

TYPICAL APPLICATIONS

- For use in low voltage, high frequency inverters mode power supplies, freewheeling diode, and polarity protection application



Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

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

For capacitive load, derate current by 20%.

Characteristic	Symbol	MBR 4020PT	MBR 4040PT	MBR 4045PT	MBR 4050PT	MBR 4060PT	MBR 4080PT	MBR 40100PT	MBR 40150PT	MBR 40200PT	Unit	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	45	50	60	80	100	150	200	V	
Maximum RMS Voltage	V_{RMS}	14	28	31.5	35	42	56	70	105	140	V	
Maximum DC Blocking Voltage	V_{DC}	20	40	45	50	60	80	100	150	200	V	
Maximum Average Forward (See Figure 1)	$I_{F(AV)}$	40									A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	275									A	
Maximum Forward Voltage at 20A per leg	V_F	0.70		0.8			0.85		0.95		V	
Maximum DC Reverse Current at $T_J=25^{\circ}\text{C}$ Rated DC Blocking Voltage $T_J=125^{\circ}\text{C}$	I_R	0.1					20					mA
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	2.2									$^{\circ}\text{C}/\text{W}$	
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150									$^{\circ}\text{C}$	

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RATING AND CHARACTERISTIC CUEVES

