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 Curren
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

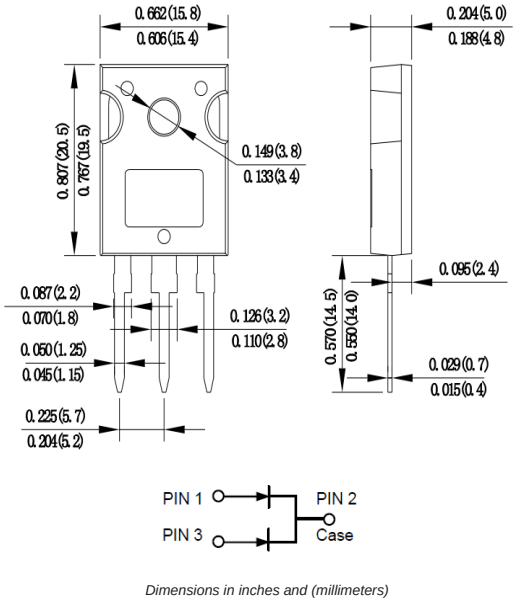
MECHANICAL DATA

- Case: TO-247AD/TO-3P TYPE molde
- 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

TO-247AD/TO-3P



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics @T_A=25℃ unless otherwise specified

Single Phase, half wave, 60H_Z, 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℃ Rated DC Blocking Voltag T_J =125℃	I_R	0.1 20									mA
Typical Thermal Resistance,Junction to Case	$R_{\theta JC}$	2.2									℃/W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150									℃

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RATING AND CHARACTERISTIC CUEVES

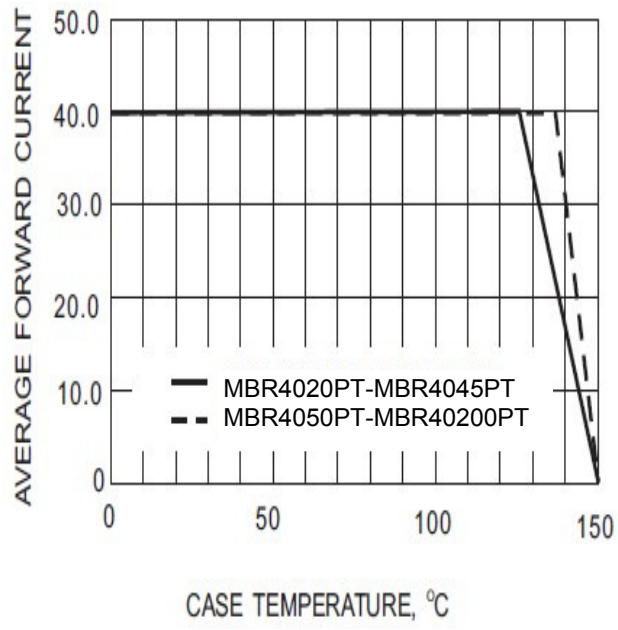


Fig-1
FORWARD CURRENT DERATING CURVE

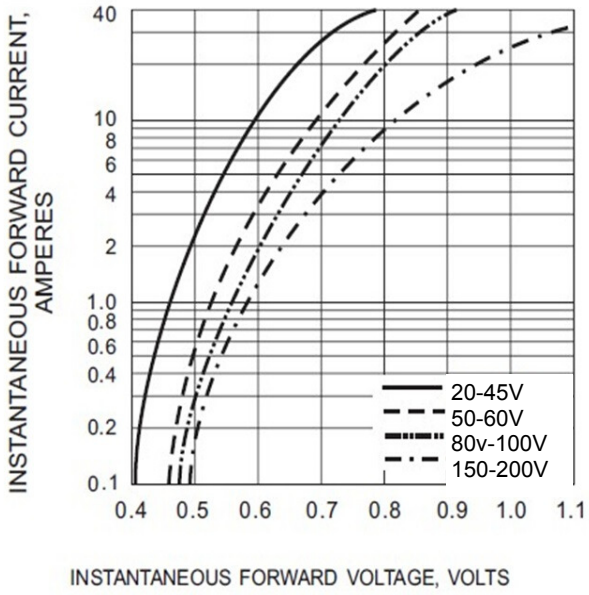


Fig-2
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

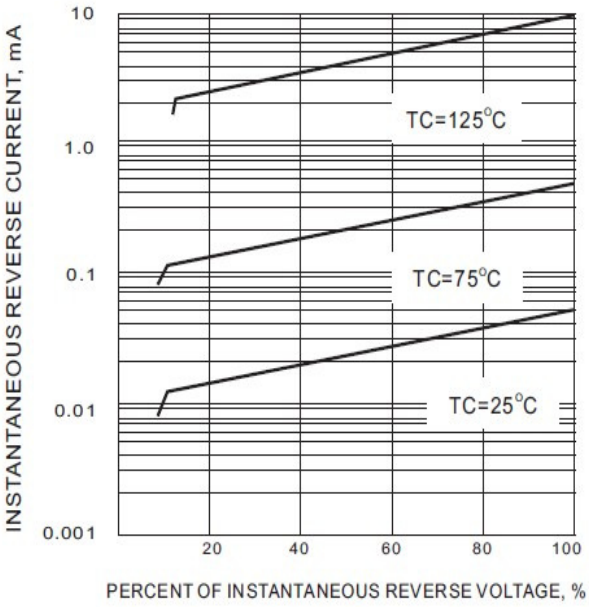


Fig-3
TYPICAL REVERSE CHARACTERISTICS

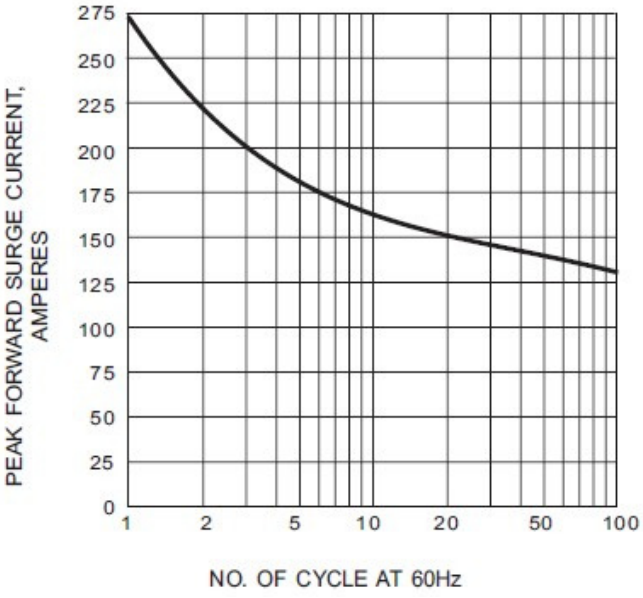


Fig-4
MAXIMUM NON-REPETITIVE SURGE CURRENT