MBR3040PT~MBR30200PT

30.0Amp Schottky Barrier Rectifiers

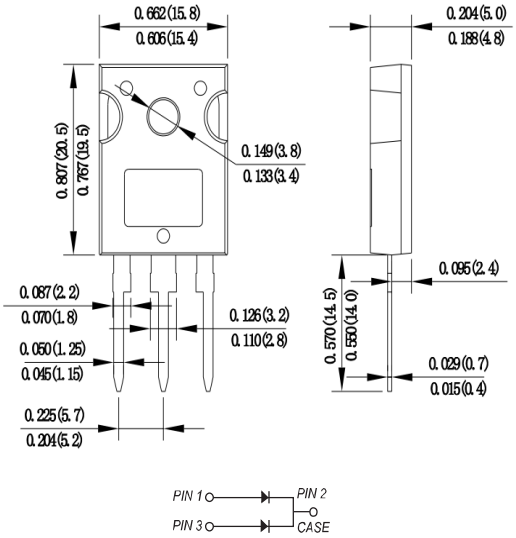
TO-247

RoHS COMPLIANT

Pb-Free

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250℃/10 seconds at terminals



Dimensions in inches and (millimeters)

Mechanical Data

Case : Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any

Maximum Ratings And Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MBR 3040PT	MBR 3045PT	MBR 3060PT	MBR 30100PT	MBR 30150PT	MBR 30200PT	UNITS
Maximum repetitive 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 at T_C=110℃ per device per diode	$I_{(AV)}$	30.0 15.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200.0						A
Maximum instantaneous forward voltage per diode at 15.0A	V_F	0.55		0.70	0.85	0.95		V
Maximum DC reverse current at rated DC blocking voltage T_A =25℃ T_A=125℃	I_R	0.5 50			0.05 10			mA
Typical thermal resistance	R_{qJC}	2.8						℃/W
Operating junction temperature range	T_J	-55 to +150						℃
Storage temperature range	T_{STG}	-55 to +150						℃

MBR3040PT~MBR30200PT

30.0Amp Schottky Barrier Rectifiers

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

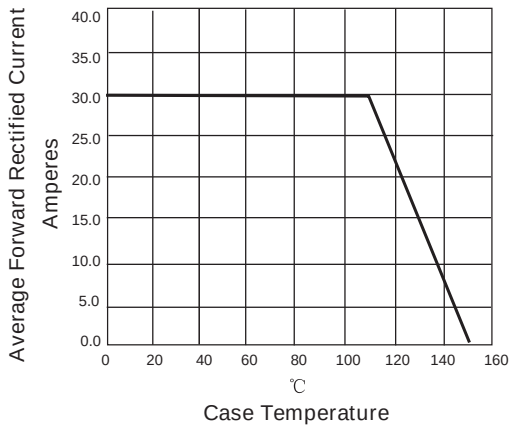


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

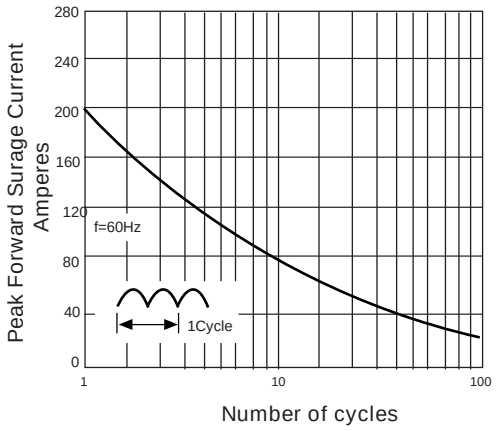


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

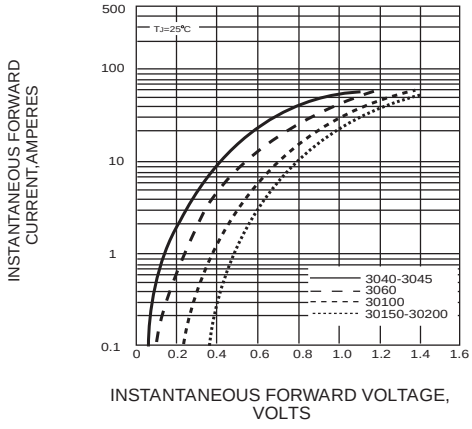
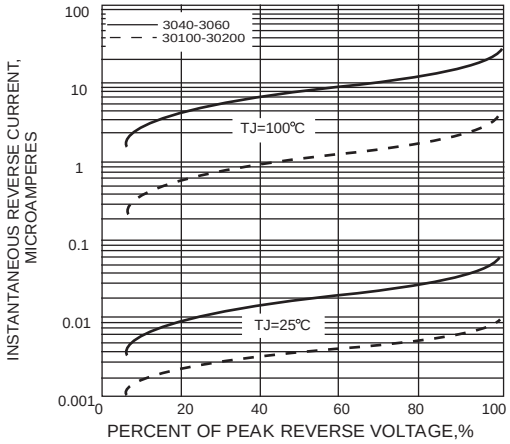
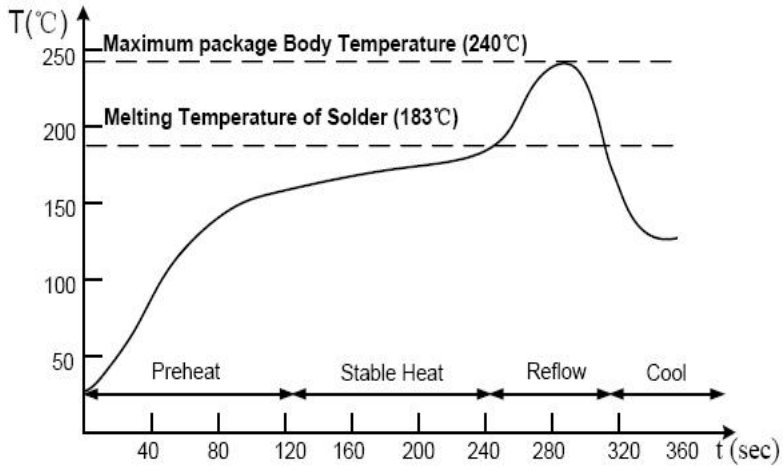


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Suggested Soldering Temperature Profile



Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Tube Package

Package	Tube (mm)	Q'TY/Tube (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
TO-247	510*45.5*7.8	0.03	545*150*45	0.45	570*260*150	2.25