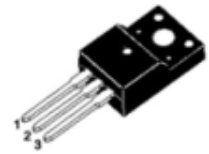
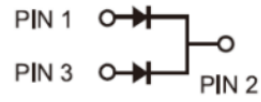
20.0Amp Schottky Barrier Rectifiers

Features

- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
  250 ℃/10 seconds at terminals
- Component in accordance to
  RoHS 2011/65/EU



TO-220F



Mechanical Date

- **Case:**TO220F
  Molding compound meets
  UL 94 V-0 flammability rating
- **Terminals:** Solder plated, solderable per
  MIL-STD-750， Method 2026
- **Polarity :** Polarity symbol marking on body
- **Mounting Position:** Any

Maximum Ratings & Thermal Characteristics (T$_A$ = 25 °C unless otherwise specified)

Parameter	Symbol	MBR 2040	MBR 2045	MBR 2060	MBR 20100	MBR 20150	MBR 20200	Unit
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=125℃	$I_{F(AV)}$	20						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150						A
Thermal resistance from junction to case	$R_{\theta JC}$	1.3						℃/W
Junction temperature	T_J	-55 to +150						℃
Storage temperature range	T_{STG}	-55 to +150						℃

Electrical Characteristics (T$_A$ = 25 °C unless otherwise noted)

Parameter		Symbol	MBR 2040	MBR 2045	MBR 2060	MBR 20100	MBR 20150	MBR 20200	Unit
Maximum instantaneous forward voltage per diode at 10.0A		V_F	0.55		0.70	0.85	0.95		V
Maximum DC reverse current at rated DC blocking voltage	T_A=25℃	I_R	0.5			0.05			mA
	T_A=125℃		50			10			

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

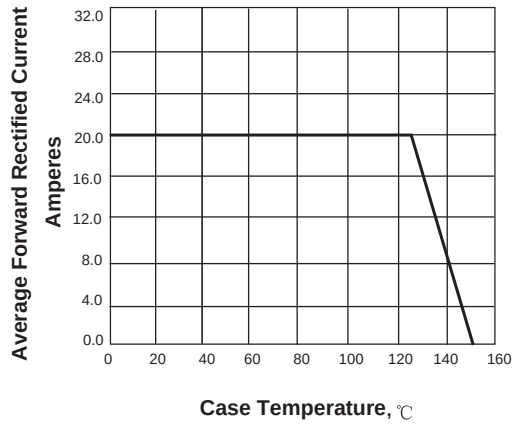


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

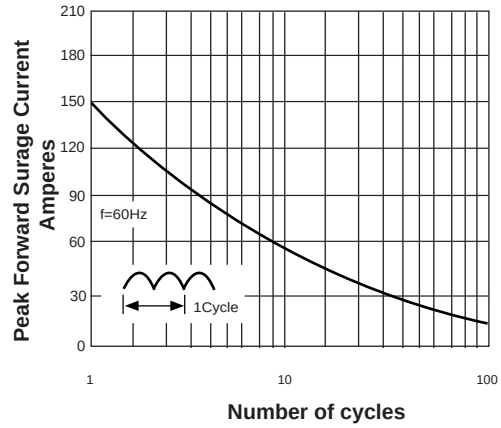


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

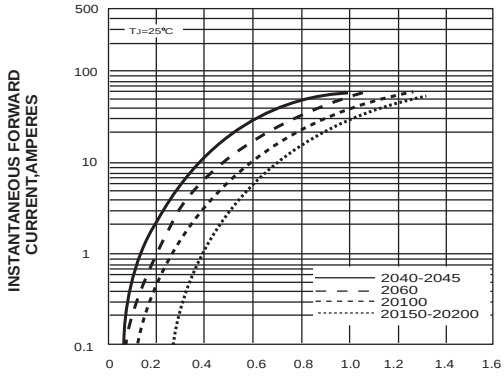


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS