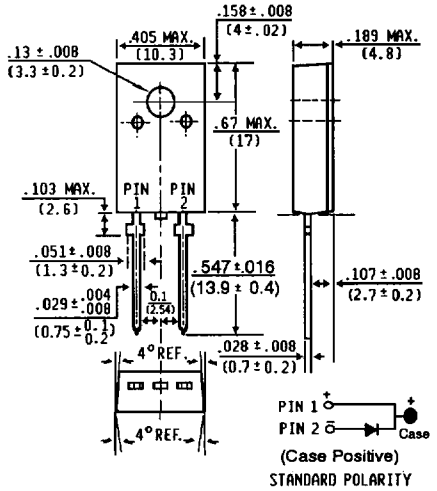
MBRF1050 AND MBRF1060

SCHOTTKY RECTIFIER

***VOLTAGE RANGE** - 50 and 60 Volts **CURRENT** -10.0 Amperes*

FEATURES

ITO-220



Dimension in inches and (millimeters)

- Isolated plastic package has Underwriters Laboratory Flammability Classifications 94V-O
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low V_F
- High surge capacity
- Epitaxial construction
- Guardring for transient protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Internal Insulation: 1.5K V_{RMS}
- High temperature soldering guaranteed: 250°C/10 seconds/.25"(6.35mm) from case

MECHANICAL DATA

Case: ITO-220 Fully Over Molded Plastic
Terminals: Leads Solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Mounting Torque: 5 in-lb. max.
Weight: .08 ounces, 2.24 gram

Ratings at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load.

	SYMBOLS	MBRF1050	MBRF1060	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	60	Volts
Maximum Working Peak Reverse Voltage	V_{RWM}	50	60	Volts
Maximum DC Blocking Voltage	V_{DC}	50	60	Volts
Maximum Average Forward Rectified Current at T_C=133°C	$I_{(AV)}$	10.0		Amps
Peak Repetitive Forward Current, (Square Wave 20 KHz) at T_C=133°C	I_{FRM}	20.0		Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0		Amps
Peak Repetitive Reverse Surge Current (NOTE 2)	I_{RRM}	0.5		Amps
Voltage Rate of Change (rated V_R)	dv/dt	1000		V/μs
Maximum Instantaneous Forward Voltage at (NOTE 1) I_F=1.0A, T_C=25°C I_F=10A, T_C=125°C I_F=20A, T_C=125°C I_F=20A, T_C= 25°C	V_F	0.80 0.70 0.85 0.95		Volts
Maximum Instantaneous Reverse Current at Rated DC Block Voltage (NOTE 1) T_C=125°C T_C=25°C	I_R	50.0 0.15		mA mA
Typical Thermal Resistance, Junction to Case	RΘJC	2.2		°C/W
Operating Junction Temperature Range	T_J	-65 to +150		°C
Storage Temperature Range	T_{STG}	-65 to +175		°C

NOTES: 1. Pulse Test Pulse Width 300μs, Duty Cycle 2%.
2. 2.0μs Pulse Width, f=1.0 KHz.

FIG. 1—FORWARD CURRENT DERATING CURVE

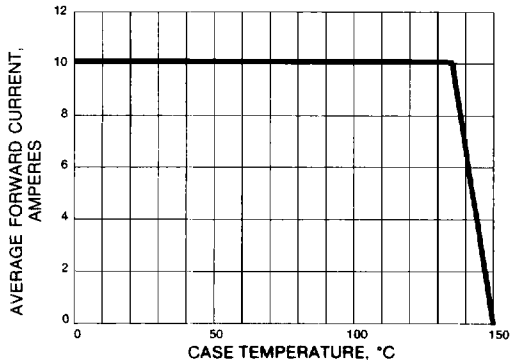


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

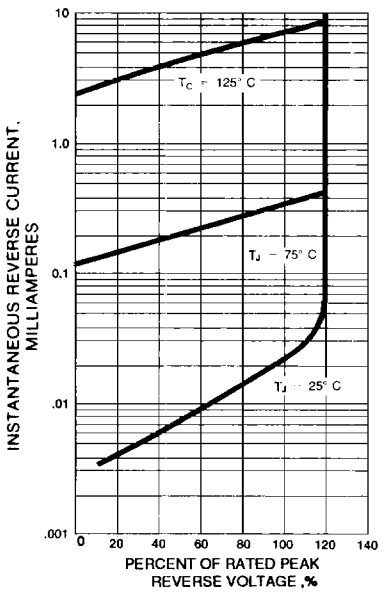


FIG 2. - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

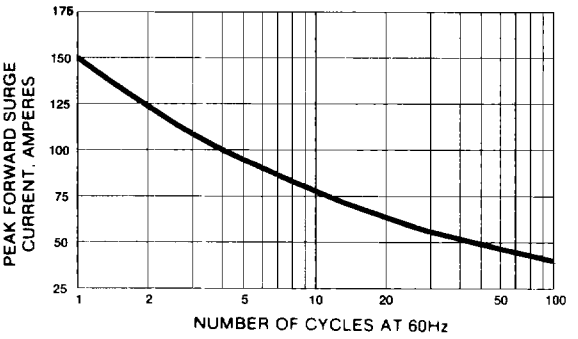


FIG. 4—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

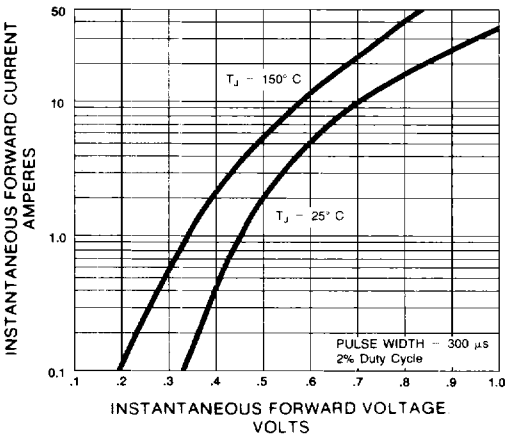


FIG. 5—TYPICAL JUNCTION CAPACITANCE