

7.5 AMPS. SCHOTTKY BARRIER RECTIFIERS



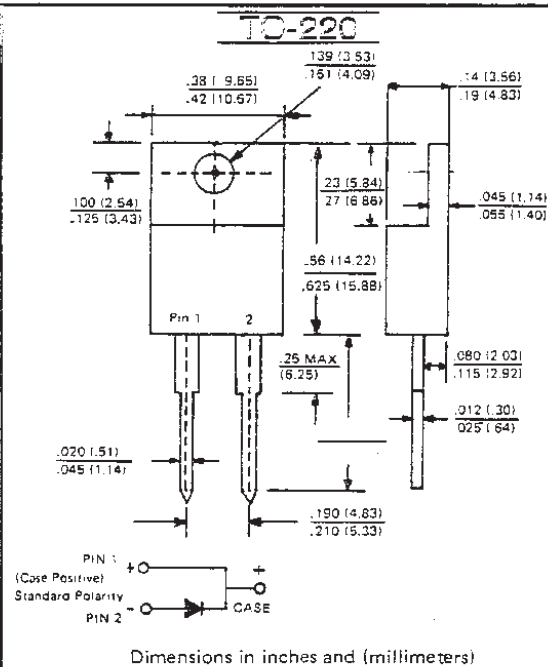
VOLTAGE RANGE
30 to 60 Volts
CURRENT
7.5 Amperes

FEATURES

- Plastic package has U/L
- Flammability Classification 94V-0
- Exceeds environmental standards of MIL-S-19500
- Metal of silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low V_F
- High surge capacity
- Guard ring for transient protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250°C/10 Seconds /0.375" (9.5mm) lead lengths at 5 lbs (2.3kg) tension

MECHANICAL DATA

Case: TO-220 molded plastic
 Terminals: Lead solderable per MIL-STD-202 Method 208
 Polarity: As marked
 Mounting position: Any
 Weight: 0.08 ounces, 2.24 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		MBR730	MBR735	MBR740	MBR745	MBR750	MBR760	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	35	40	45	50	60	V
Working Peak Reverse Voltage	V_{RWM}	21	24.5	28	31.5	35	42	V
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	50	60	V
Maximum Average Forward Rectified Current (See Fig. 1)	$I_{(AV)}$	7.5						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150						A
Peak Repetitive Reverse Surge Current (Note 3)	I_{RRM}	1.0						A
Maximum Instantaneous Forward Voltage $I_F = 7.5A, T_C = 125^\circ C$ $I_F = 15A, T_C = 25^\circ C$	V_F	0.57 0.70			0.65 0.75			V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage per element $T_C = 125^\circ C$	I_R	15			50			mA
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage (Note 2) $T_C = 25^\circ C$	I_R	0.1						mA
Voltage Rate of Change	dv/dt	1000						V/ μs
Typical Thermal Resistance, (Note 1)	$R_{\theta JC}$	3.5						°C/W
Maximum Operating Junction Temperature	T_J	-65 to + 150						°C
Maximum Storage Temperature	T_{STG}	-65 to + 175						°C

NOTES: 1. Thermal Resistance Junction to Cycle 2. 300 μs Pulse Width, 2% Duty Cycle. 3. 2.0 μs , 1.0 KHz

