

# Schottky Barrier Rectifier

## MBR3040CT

### FEATURES

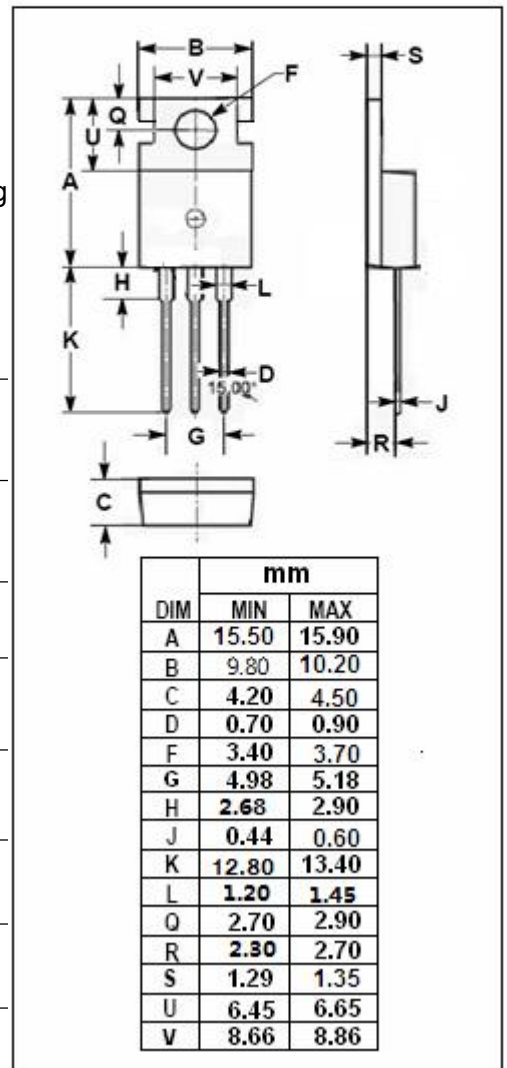
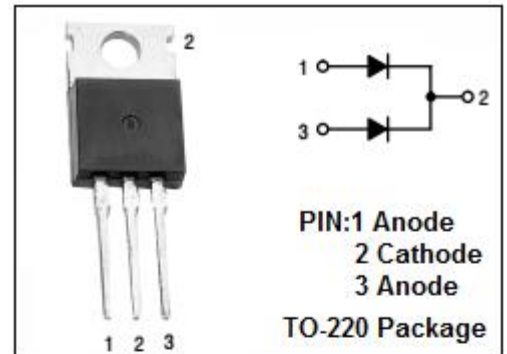
- Schottky Barrier Chip
- Dual Rectifier Conduction, Positive Center Tap
- Low Power Loss/High Efficiency
- High Current Capability, Low Forward Voltage Drop
- High Surge Capacity
- Guarding for Overvoltage protection
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Designed for low-voltage,high frequency inverters, free wheeling and polarity protection applications .

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	40	V
V <sub>R(RMS)</sub>	RMS Reverse Voltage	28	V
I <sub>F(AV)</sub>	Average Rectified Forward Current (Rated V <sub>R</sub> ) T <sub>C</sub> = 100°C	30	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	200	A
T <sub>J</sub>	Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~175	°C
dv/dt	Voltage Rate of Change (Rated V <sub>R</sub> )	10,000	V/ μ s



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## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.5	°C/W

## ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	I <sub>F</sub> = 15A ; T <sub>C</sub> = 25°C I <sub>F</sub> = 30A ; T <sub>C</sub> = 25°C I <sub>F</sub> = 30A ; T <sub>C</sub> = 125°C	0.70 0.84 0.72	V
I <sub>R</sub>	Maximum Instantaneous Reverse Current	Rated DC Voltage, T <sub>C</sub> = 25°C Rated DC Voltage, T <sub>C</sub> = 125°C	0.2 40	mA

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