

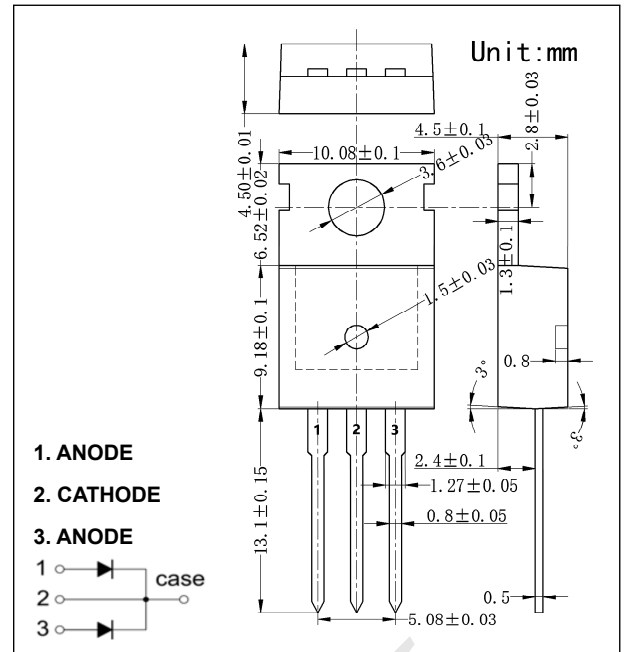
# TO-220 Plastic-Encapsulate Diodes

## MBR2045VCT

20A Schottky Barrier Rectifier

### Features

- Low power loss, high efficiency. High surge capacity
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



### Maximum Ratings (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>RRM</sub>	Peak repetitive reverse voltage	45	V
V <sub>RWM</sub>	Working peak reverse voltage	31.5	
V <sub>R(DC)</sub>	DC blocking voltage	45	
I <sub>F(AV)</sub>	Maximum Average Forward Current	20	A
I <sub>FSM</sub>	Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	200	A
V <sub>F</sub>	Maximum Forward Voltage@10A	0.50	V
I <sub>R</sub>	Maximum DC Reverse Current	T <sub>j</sub> = 25°C	0.2 mA
		T <sub>j</sub> = 125°C	20 mA
R <sub>θJA</sub>	Thermal resistance from junction to ambient	50	°C/W
T <sub>j</sub>	Junction temperature	150	°C
T <sub>stg</sub>	Storage temperature	-40~+150	°C

# Typical Characteristics

FIG. 1- FORWARD CURRENT DERATING CURVE

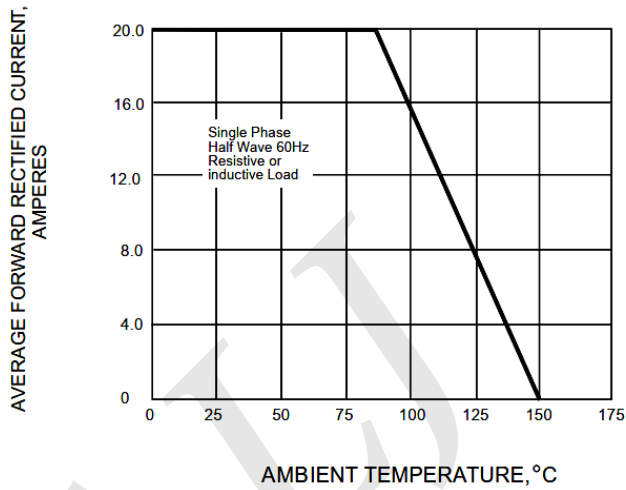


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

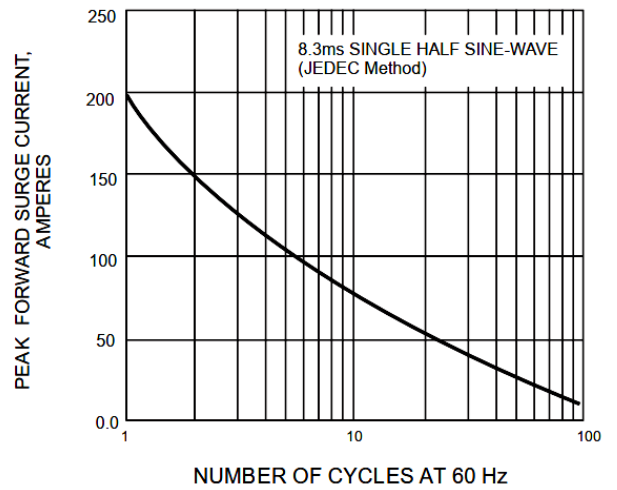


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

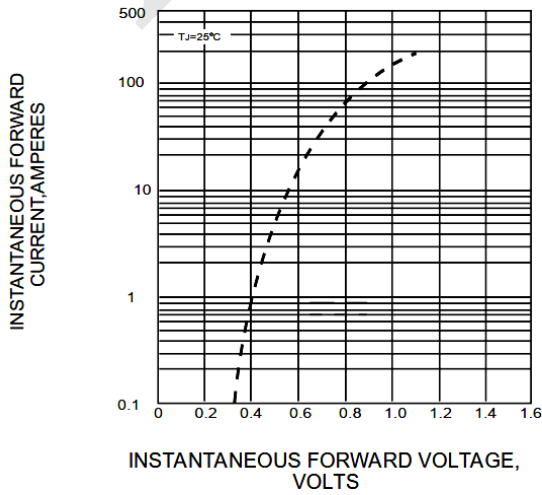


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

