

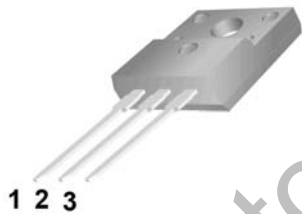


MBRF20100VCT

Features:

- ☐ Low power loss, high efficiency.
High surge capacity
- ☐ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ☐ Metal silicon junction, majority carrier conduction.
- ☐ High current Capability, low forward voltage drop.
- ☐ Guard ring for over voltage protection.

TO-220F




1. Anode 2. Cathode 3. Anode



Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter		Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	100	V
Maximum RMS Voltage		V_{RMS}	70	V
Maximum DC Blocking Voltage		$V_{R(DC)}$	100	V
Maximum Average Forward Current		$I_{F(AV)}$	20	A
Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	200	A
Maximum Forward Voltage		V_F	0.73 0.66(typ.)	V
Maximum DC Reverse Current	Tj=25°C	I_R	0.1	mA
	Tj=125°C		20	mA
Maximum Operating Junction Temperature		T_j	150	°C
Storage Temperature		T_{stg}	-40~+150	°C

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

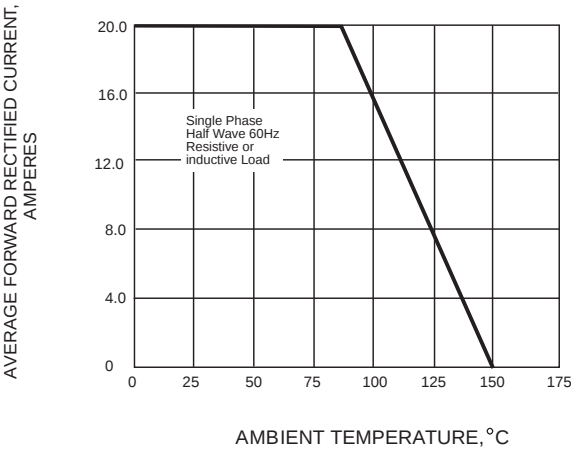


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

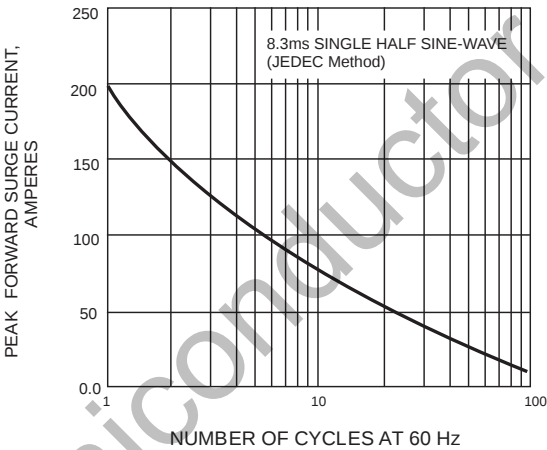


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

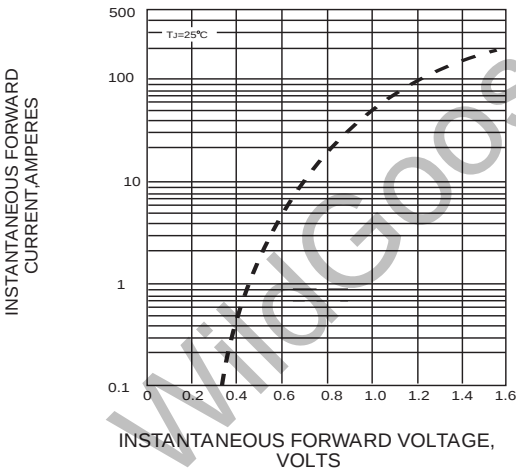
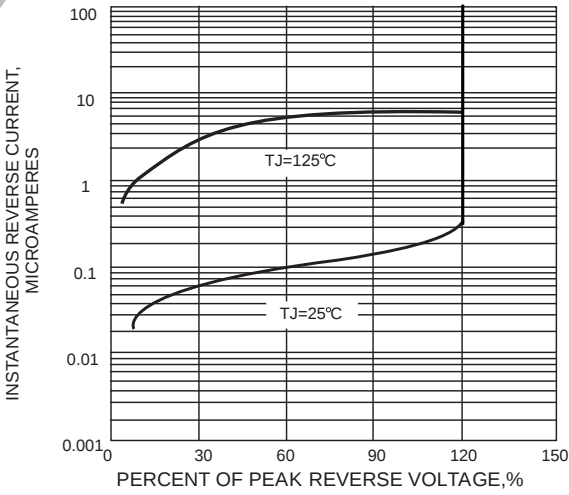


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



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The drawing shows the mechanical specifications for the 74VHC00 package. The top view shows a square body with a width of 10.16 ± 0.20 mm and a height of 15.80 ± 0.20 mm. The pin pitch is 2.54 TYP [2.54 ± 0.20] mm. The side view shows a total height of 15.87 ± 0.20 mm, with a pin height of 9.75 ± 0.30 mm. The pin width is 0.35 ± 0.10 mm, and the pin angle is 30° . The bottom view shows a width of 9.40 ± 0.20 mm and a height of 4.70 ± 0.20 mm. The drawing also includes a detail of the pin tip with a radius of 0.318 ± 0.10 mm and a chamfer of $(1.00 \times 45^\circ)$.