

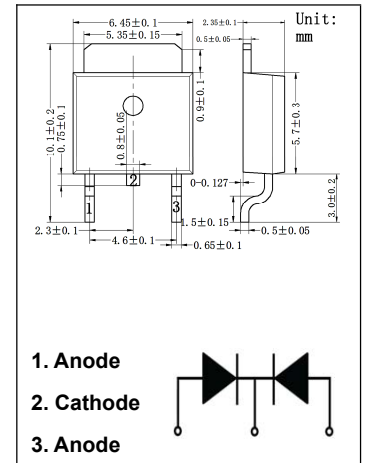
TO-252 Plastic-Encapsulate RECTIFIER

MBRD2045CT

20A SCHOTTKY BARRIER RECTIFIER

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.



Maximum Ratings ($T_a=25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Value	Unit
V_{DS}	Drain-Source voltage	45	V
V_{RMS}	Maximum RMS Voltage	31.5	V
$V_{R(DC)}$	Maximum DC Blocking Voltage	45	V
$I_{F(AV)}$	Drain Current	20	A
I_{FSM}	Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	200	A
V_F	Maximum Forward Voltage @ $I_F=10A$	0.6	A
I_R	Maximum DC Reverse Current	$T_J=25^\circ\text{C}$ 0.02 $T_J=125^\circ\text{C}$ 20	mA
T_J	Junction Temperature(MAX)	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-40 to +150	$^\circ\text{C}$

Typical Characteristics

FIG. 1- FORWARD CURRENT DERATING CURVE

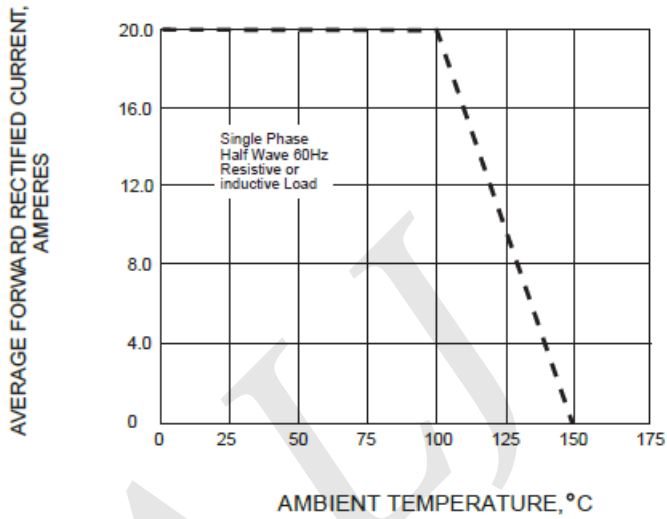


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

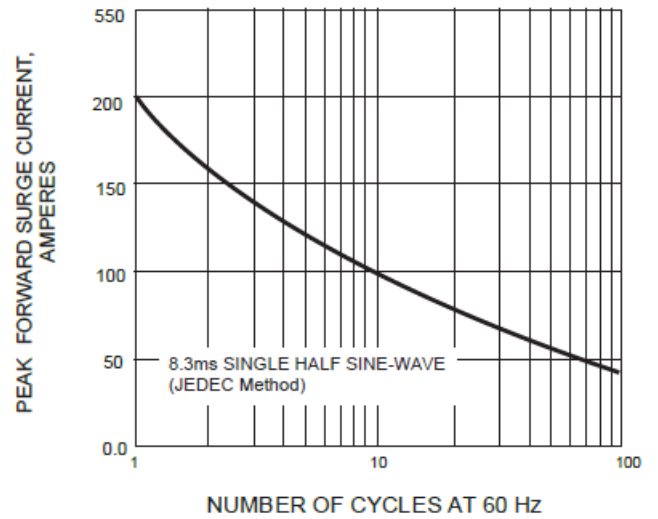


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

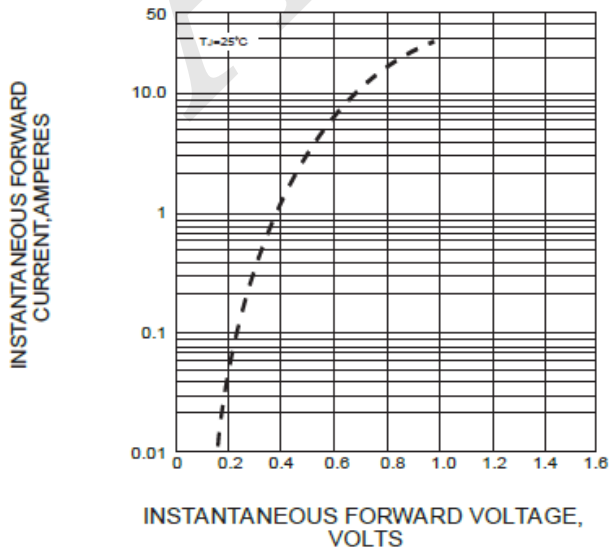


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

