



20A SCHOTTKY BARRIER RECTIFIER

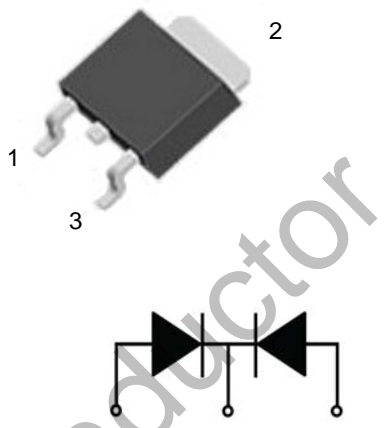


MBRD2045CT

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-252 



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}	45	V
Maximum RMS Voltage	V_{RMS}	31.5	V
Maximum DC Blocking Voltage	$V_{R(DC)}$	45	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 @IF=10A	V_F	0.60	V
Maximum DC Reverse Current	I_R	Tj=25°C	0.02 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

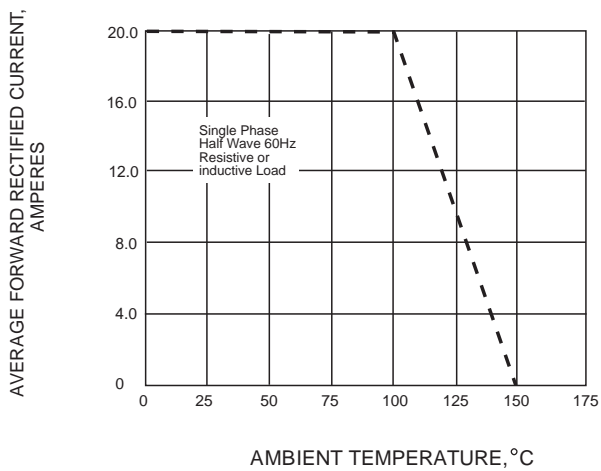


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

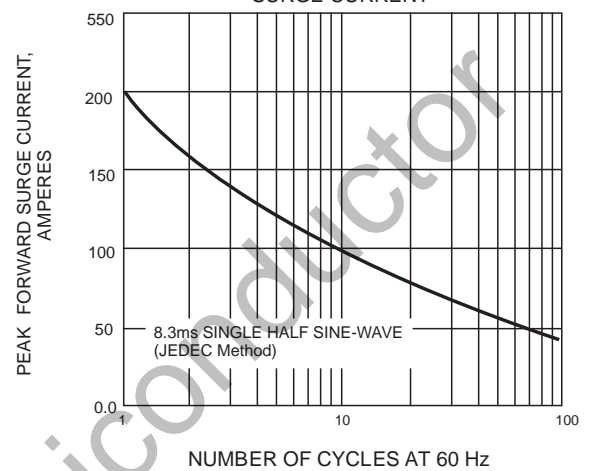


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

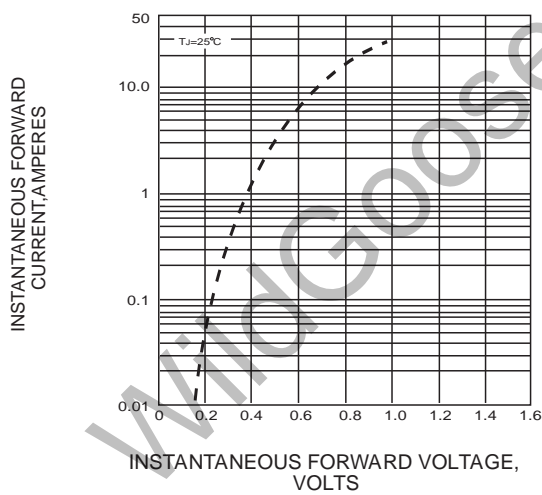
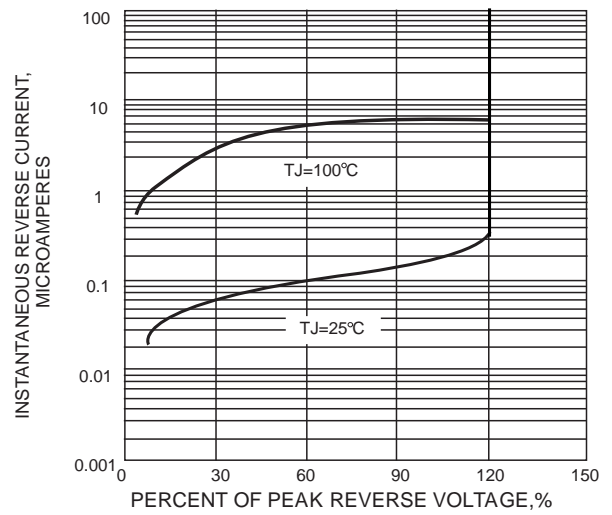


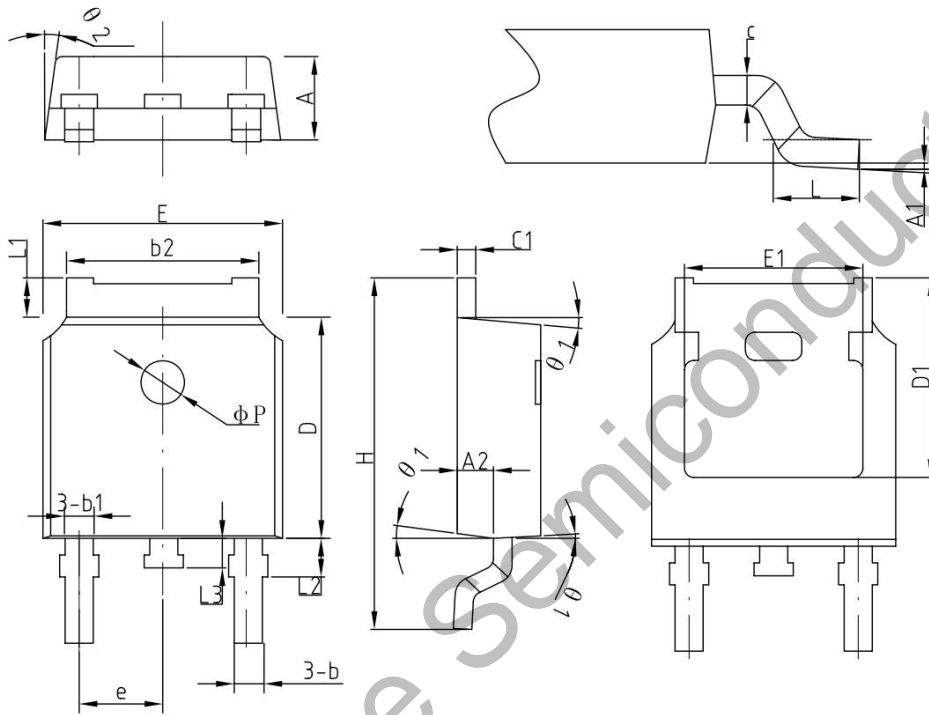
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



Package Dimension

TO-252

Units: mm



COMMON DIMENSIONS
(UNITS OF MEASURE=MILLIMETER)

SYMBOL	MIN	NOM	MAX
A	2.2	2.30	2.38
A1	0	—	0.10
A2	0.90	1.01	1.10
b	0.71	0.76	0.86
b1		0.76	
b2	5.13	5.33	5.46
c	0.47	0.50	0.60
c1	0.47	0.50	0.60
D	6.0	6.10	6.20
D1	—	5.30	—
E	6.50	6.60	6.70
E1	—	4.80	—
e	2.286BSC		
H	9.70	10.10	10.40
L	1.40	1.50	1.70
L1	0.90	—	1.25
L2		1.05	
L3		0.8	
φP		1.2	
θ	0°	—	8°
θ 1	5°	7°	9°
θ 2	5°	7°	9°