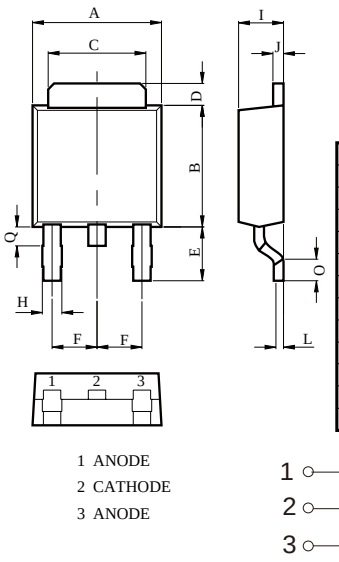
MBRD20200CT SCHOTTKY BARRIER RECTIFIER



DIM	MILLIMETERS
A	6 50 ± 0 2
B	5 60 ± 0 2
C	5 20 ± 0 2
D	1 50 ± 0 2
E	2 70 ± 0 2
F	2 30 ± 0 1
H	1 00 MAX
I	2 30 ± 0 2
J	0 5 ± 0 1
L	0 50 ± 0 10
O	1 6 ± 0 2
Q	0 95 MAX

TO-252 (D-PAK)

FEATURES

- Schottky Barrier Chip
- 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_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	200	V
V_{RWM}	Working peak reverse voltage		
$V_{R(RMS)}$	RMS reverse voltage	140	V
I_O	Average rectified output current	20	A
I_{FSM}	Non-repetitive peak forward surge current 8.3ms half sine wave	150	A
$R_{\Theta JA}$	Thermal resistance from junction to ambient (note：Test with 2inch Al board)	100	℃/W
T_j	Junction temperature	150	℃
T_{stg}	Storage temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=1㎃	200			V
Reverse current	I_R	V_R=200V			100	μA
Forward voltage	$V_{F(1)}$	I_F =10A Tj=25℃ I_F =10A Tj=125℃			0.92 0.80	V
	$V_{F(2)}$*	I_F=20A			1.2	V

*Pulse test

Typical Characteristics

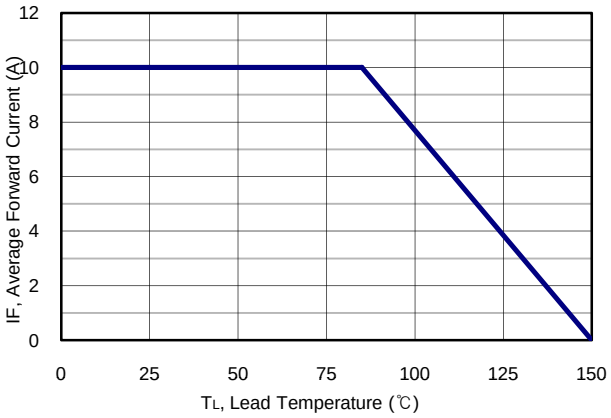


Figure 1: Current Derating Curves (Per Leg)

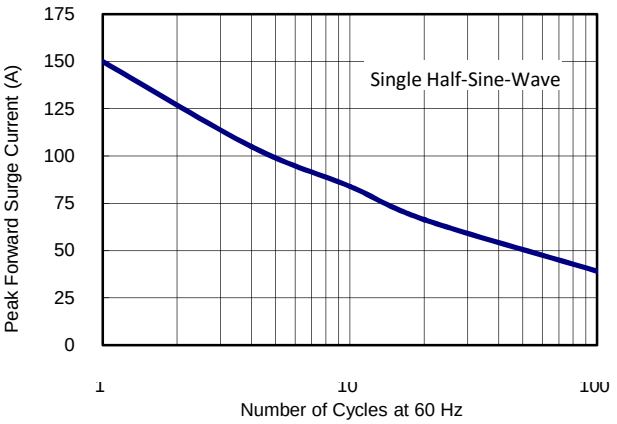


Figure 2: Peak Forward Surge Current (Per Leg)

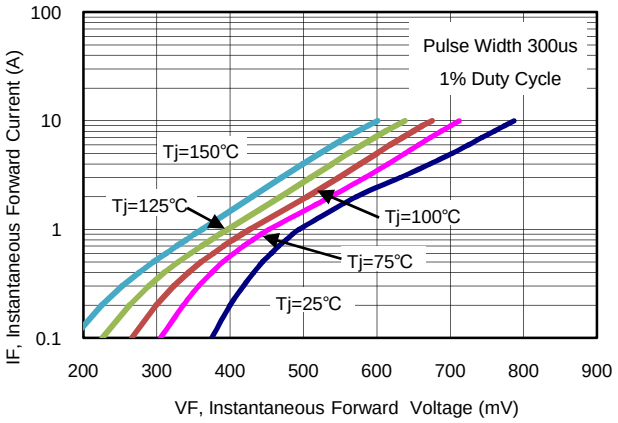


Figure 3: Typical Forward Characteristics (MBRD20100CT) (Per Leg)

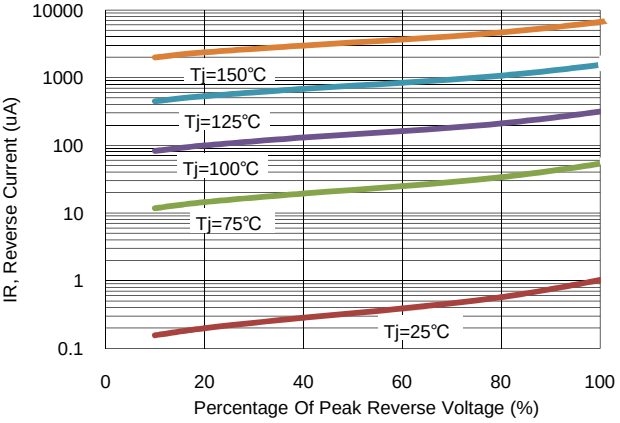


Figure 4: Typical Reverse Characteristics (MBRD20100CT) (Per Leg)