LITE-ON SEMICONDUCTOR

MBRF10150CT thru 10200CT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE **- 150** to **200** Volts
FORWARD CURRENT **- 10** Amperes

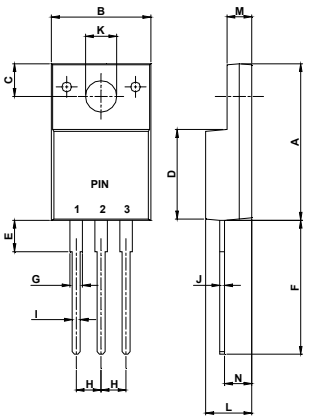
FEATURES

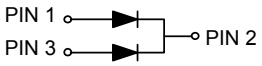
- Metal of silicon rectifier,majority carrier conducton
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0

MECHANICAL DATA

- Case : ITO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.06 ounces, 1.70 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

ITO-220AB





ITO-220AB		
DIM.	MIN.	MAX.
A	15.50	16.50
B	10.0	10.40
C	3.00	3.50
D	9.00	9.30
E	2.90	3.60
F	13.46	14.22
G	1.15	1.70
H	2.40	2.70
I	0.75	1.00
J	0.45	0.70
K	3.00 ⌀	3.30 ⌀
L	4.36	4.77
M	2.48	2.80
N	2.50	2.80
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	MBRF10150CT	MBRF10200CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	150	200	V
Maximum RMS Voltage	V_{RMS}	105	140	V
Maximum DC Blocking Voltage	V_{DC}	150	200	V
Maximum Average Forward Rectified Current (See Fig.1) T_C =135℃	$I_{(AV)}$	10		A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120		A
Peak Repetitive Reverse Current tp=2us, square F=1KHz @T_J=25℃	I_{RRM}	1		A
Voltage Rate of Change (Rated VR)	dv/dt	10000		V/us
Maximum Forward Voltage (Note 1) I_F=5A @ T_J =25℃ I_F=5A @ T_J =125℃ I_F=10A @ T_J =25℃ I_F=10A @ T_J =125℃	V_F	0.92 0.75 1.00 0.85		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_J =25℃ @T_J =125℃	I_R	8 2		uA mA
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	5.0		°C/W
Typical Junction Capacitance per element (Note 3)	C_J	120		pF
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-65 to +175		℃
Dielectric Strengh from terminals to case, AC with t=1 minute, RH<30%	V_{dis}	2000		V

NOTES : 1. 300us Pulse Width, 2% Duty Cycle.
2. Device mounted on 135 mm X 135 mm X 8 mm Alumium Plate Heatsink.
3. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

REV. 3, Oct-2010, KTHC38

RATING AND CHARACTERISTIC CURVES
MBRF10150CT thru 10200CT

FIG.1 - FORWARD CURRENT DERATING CURVE

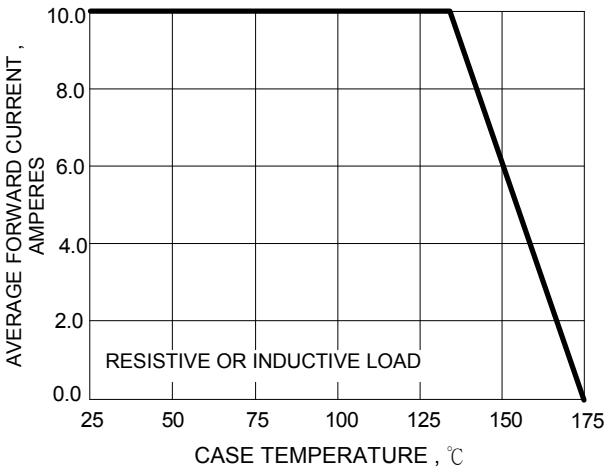


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

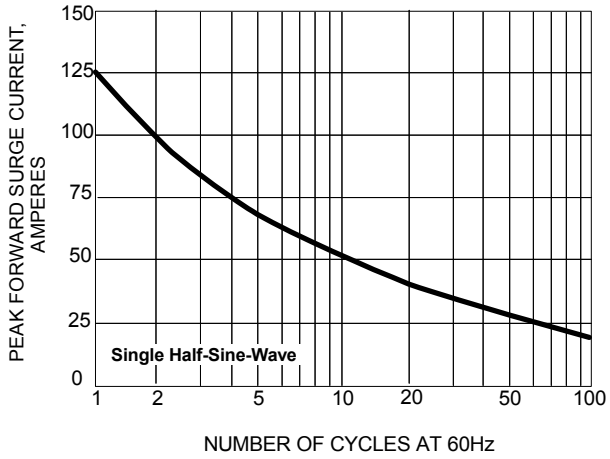


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

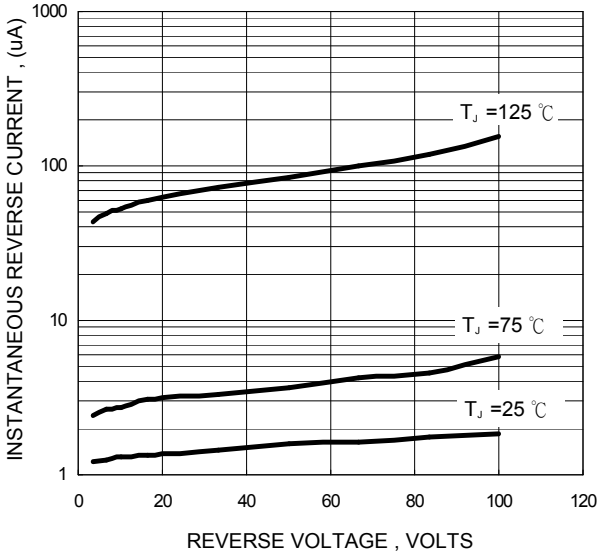


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

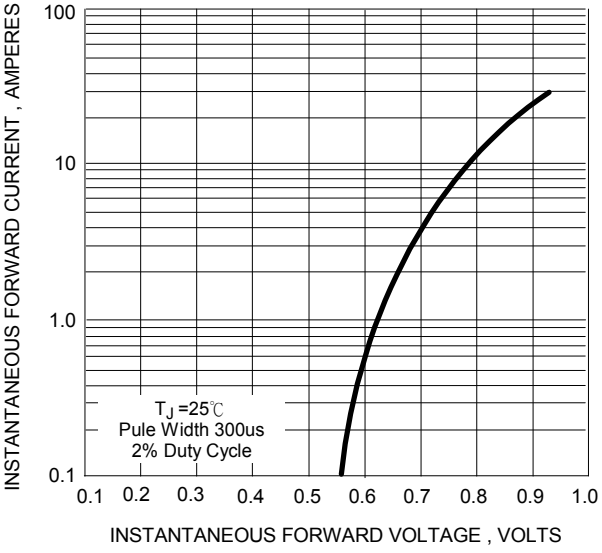
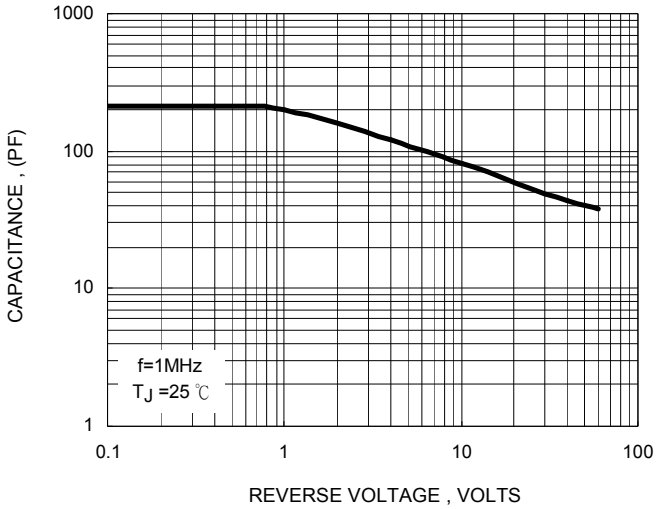


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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