

SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE - 150 Volts
FORWARD CURRENT - 20 Amperes

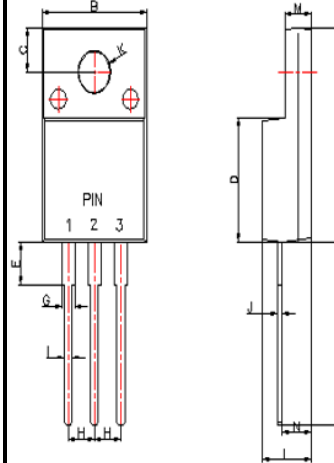
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- Low leakage current
- High current capability, low V_F
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- IEC 61000-4-2, level 4 (ESD), >15KV (air)
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

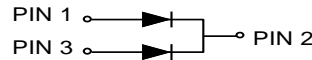
- Case: ITO-220AB molded plastic
- Polarity: AS marked on the body
- Weight: 0.06 ounces, 1.70 grams
- Mounting position : Any
- Max. mounting torque=0.5N.m(5.1Kgf.cm)

ITO-220AB



ITO-220AB		
DIM	MIN	MAX
A	15.50	16.50
B	10.00	10.40
C	3.00	3.50
D	9.00	9.50
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 dimension in millimeter



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	MBRF20150CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	150	V
Maximum RMS Voltage	V_{RMS}	105	V
Maximum DC Blocking Voltage	V_{DC}	150	V
Maximum Average Forward Rectified Current (See Fig.1) $T_C = 120^\circ C$	$I_{(AV)}$	20	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	180	A
Voltage Rate of Change (Rated VR)	dv/dt	10000	V/us
Maximum Forward Voltage (Note 4)	V_F	0.92 0.75 1.00 0.86	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	8 5	μA mA
Typical Thermal Resistance (Note 5)	$R_{\theta JC}$	2.5	$^\circ C/W$
Typical Junction Capacitance per element (Note 6)	C_J	250	pF
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +175	$^\circ C$
Dielectric Strength from terminals to case, AC with $t=1$ minute, $RH < 30\%$	V_{dis}	2000	V

Note:

REV-5, Aug-2021, KTHC31

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. 300us pulse width, 2% duty cycle.
5. Device mounted on 226 x 114 x 8mm Aluminum plate.
6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

RATING AND CHARACTERISTIC CURVES
MBRF20150CT

FIG.1 - FORWARD CURRENT DERATING CURVE

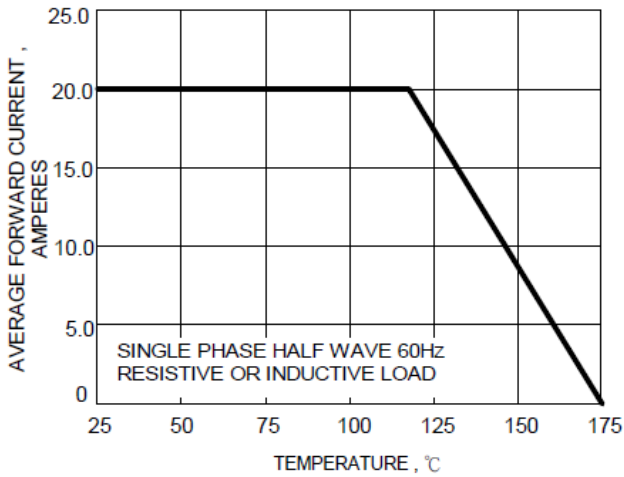


FIG.2 - MAXIMUM NONREPETITIVE SURGE CURRENT

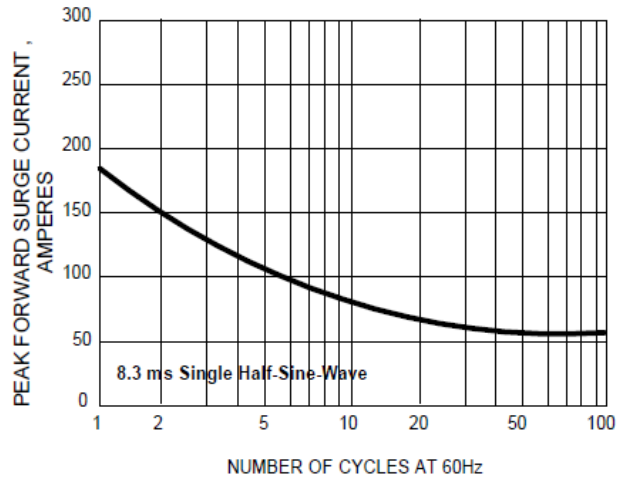


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

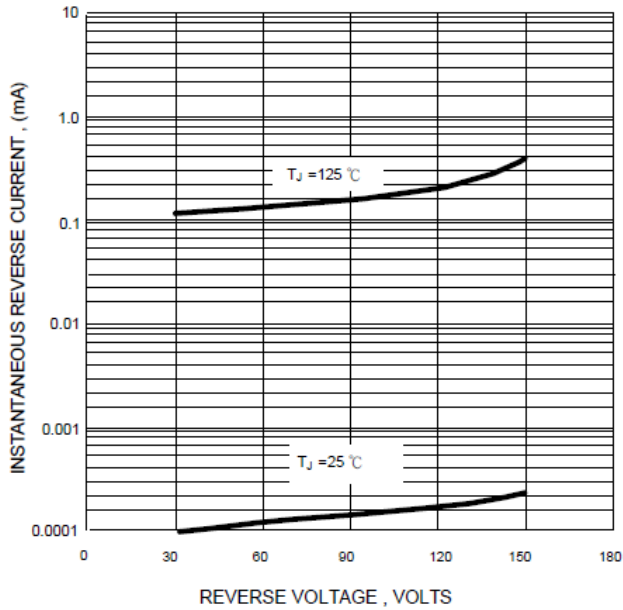


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

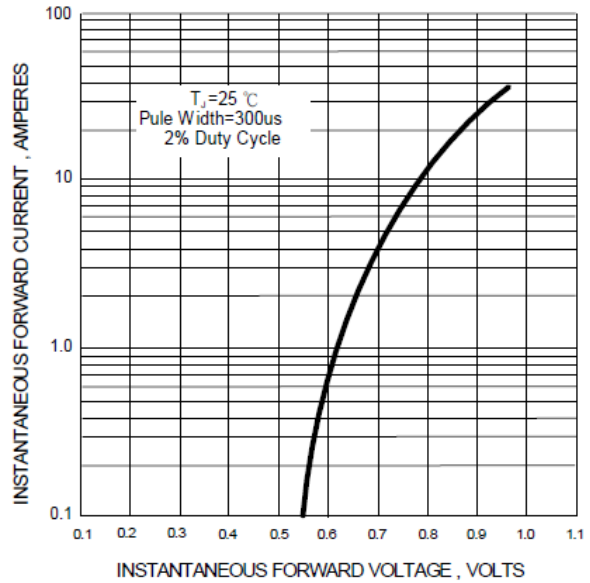
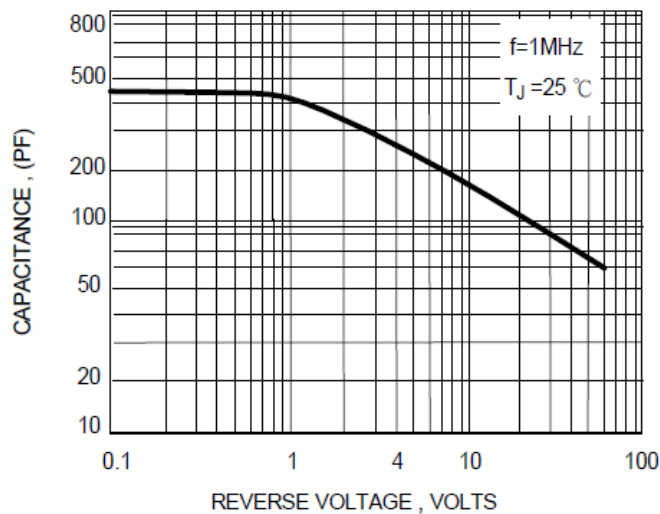


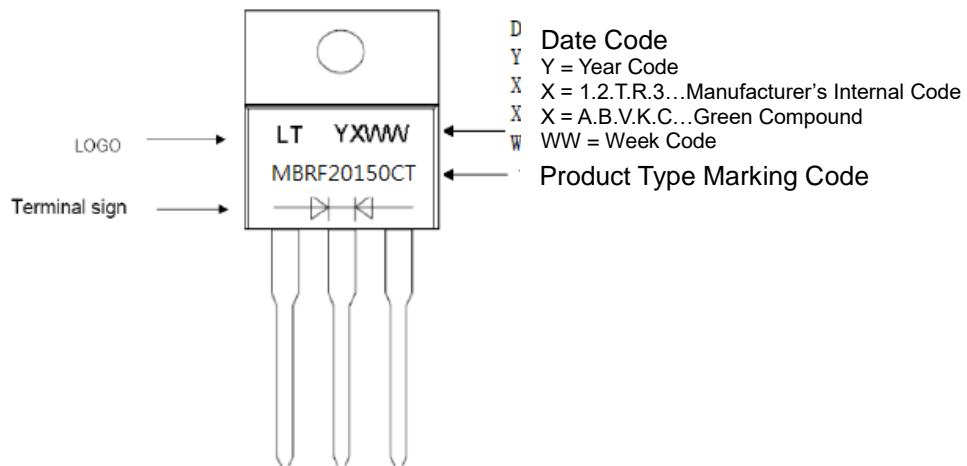
FIG.5 - TYPICAL JUNCTION CAPACITANCE



Ordering Information :

Part Number	Case	Packaging
MBRF20150CT	ITO-220AB	50 Pieces/Tube

Marking Information :



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