

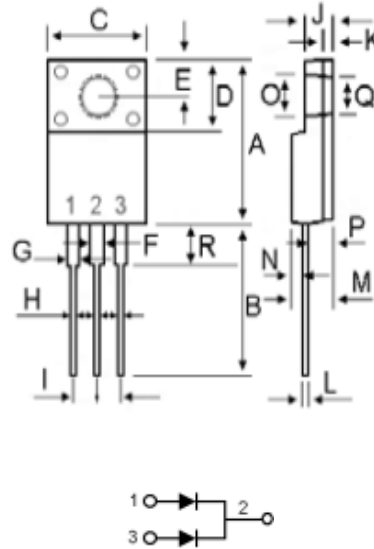
**FEATURES**

- Metal of silicon rectifier, majority carrier conduction
- 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 : T0-220F molded plastic
- Polarity : As marked on the body
- Mounting position : Any

TO-220F PACKAGE



DIM	MILLIMETERS	
	MIN	MAX
A	15.67	16.07
B	12.90	13.30
C	9.96	10.36
D	6.50	6.90
E	2.65	2.75
F	1.20	1.24
G	1.26	1.46
H	0.70	0.90
I	2.34	2.74
J	2.32	2.72
K	0.60	0.90
L	0.45	0.60
M	4.53	4.93
N	1.30	1.70
O	3.35	3.45
P	2.56	2.96
Q	3.15	3.25
R	2.20	2.45

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60HZ, resistive or inductive load.  
 For capacitive load, derate current by 20%

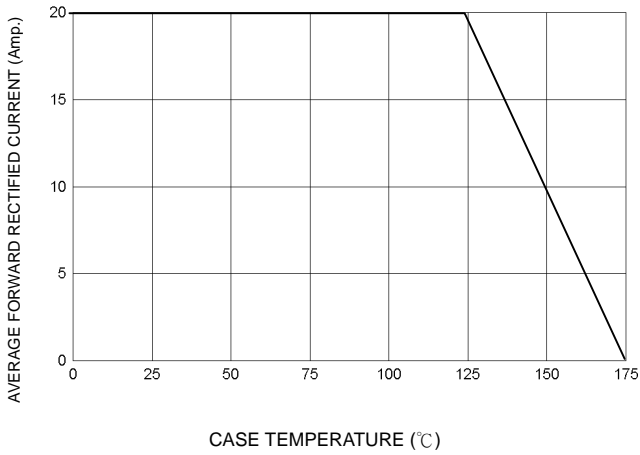


**Lead Free**

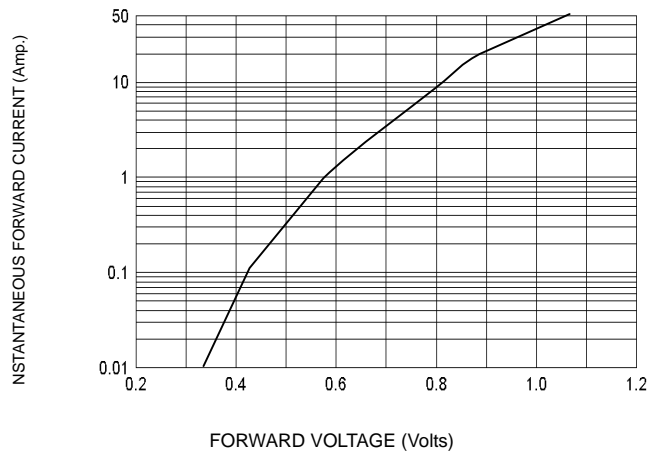
CHARACTERISTICS	SYMBOL			MBR20150FCT	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM			150	V
Maximum RMS Voltage	VRMS			105	V
Maximum DC Blocking Voltage	V <sub>cc</sub>			150	V
Average Rectifier Forward Current ( per diode ) Total Device (Rated VR) @T <sub>c</sub> =125°C	IF (AV)			10 20	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	IFSM			150	A
Maximum Instantaneous Forward Voltage	IF=10A	T <sub>c</sub> =25°C T <sub>c</sub> =125°C	VF	0.92 0.85	V
Instantaneous Reverse Current	AT VRM	T <sub>c</sub> =25°C T <sub>c</sub> =125°C	IR	0.05 15	MA
Typical Thermal Resistance	R <sub>θJC</sub>			3.6	°C/W
Operating Temperature Range	T <sub>J</sub>			-55to+175	°C
Storage Temperature Range	T <sub>STG</sub>			-55to+175	°C

**RATINGS AND CHARACTERISTIC CURVES**

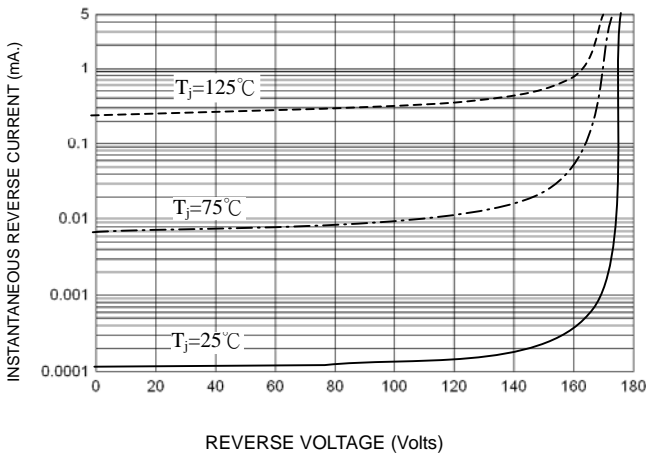
**FIG-1 FORWARD CURRENT DERATING CURVE**



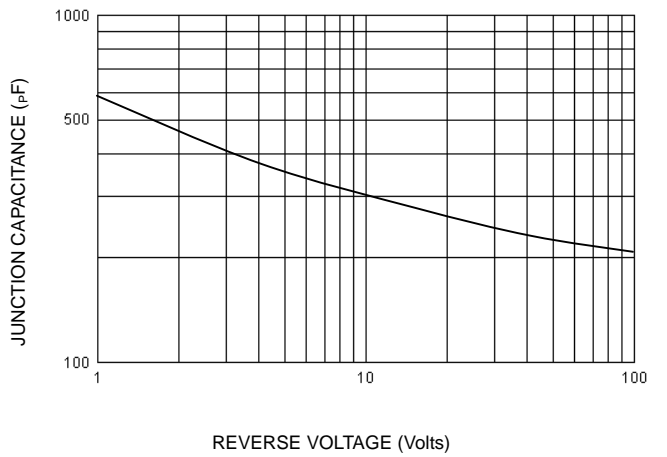
**FIG-2 TYPICAL FORWARD CHARACTERISTICS**



**FIG-3 TYPICAL REVERSE CHARACTERISTICS**



**FIG-4 TYPICAL JUNCTION CAPACITANCE**



**FIG-5 PEAK FORWARD SURGE CURRENT**

