

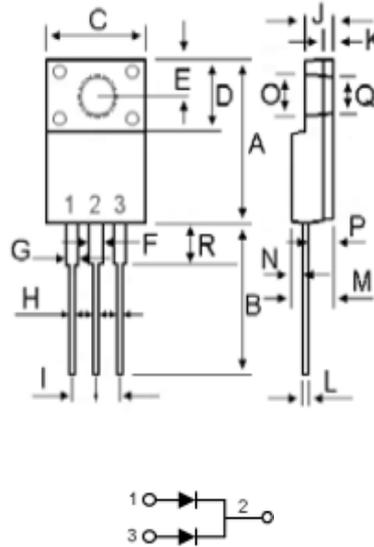
FEATURES

- 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			MBR10150FCT	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM			150	V
Maximum RMS Voltage	VRMS			105	V
Maximum DC Blocking Voltage	V _{cc}			150	V
Average Rectifier Forward Current (per diode) Total Device (Rated VR) @T _c =125°C	IF(AV)			5 10	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	IFSM			125	A
Maximum Instantaneous Forward Voltage	IF=5A	T _c =25°C T _c =125°C	VF	0.92 0.85	V
Instantaneous Reverse Current	AT VRM	T _c =25°C T _c =125°C	IR	0.05 15	MA
Typical Thermal Resistance	R _{θJC}			3.8	°C/W
Operating Temperature Range	T _J			-55to+175	°C
Storage Temperature Range	T _{STG}			-55to+175	°C

RATINGS AND CHARACTERISTIC CURVES

FIG-1 FORWARD CURRENT DERATING CURVE

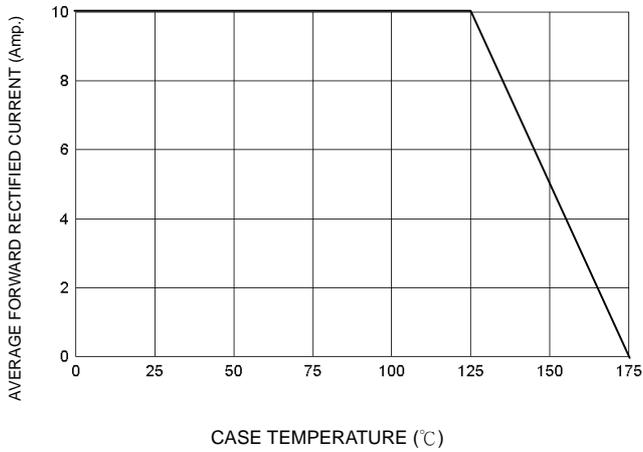


FIG-2 TYPICAL FORWARD CHARACTERISTICS

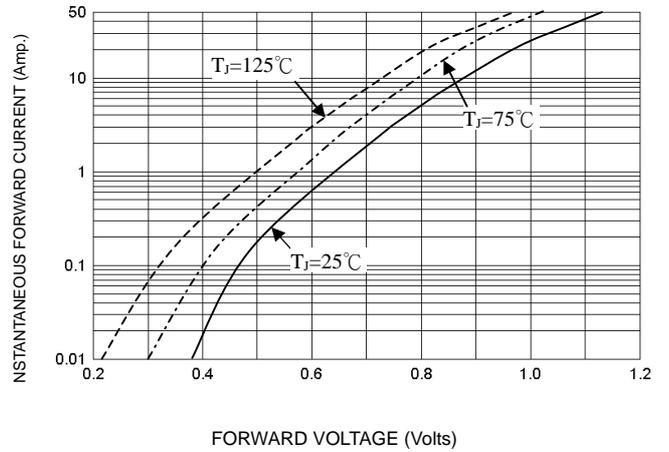


FIG-3 TYPICAL REVERSE CHARACTERISTICS

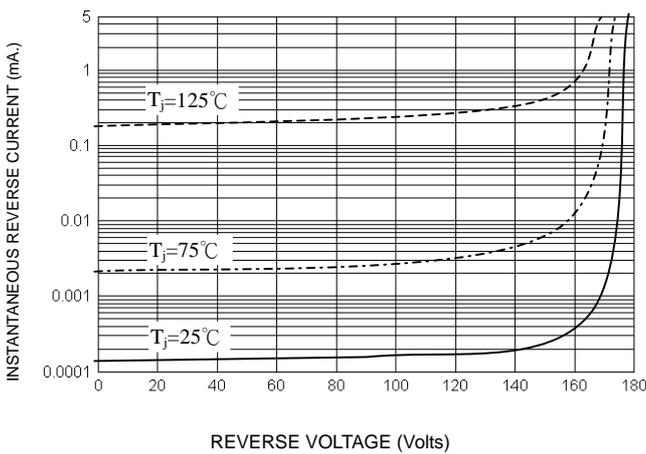


FIG-4 TYPICAL JUNCTION CAPACITANCE

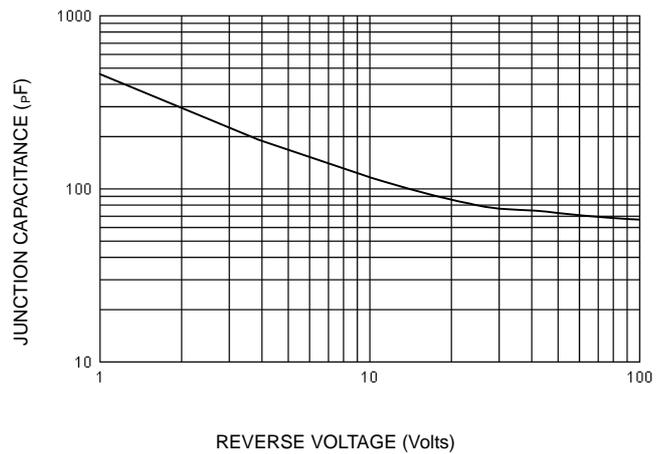


FIG-5 PEAK FORWARD SURGE CURRENT

