MORESEMI

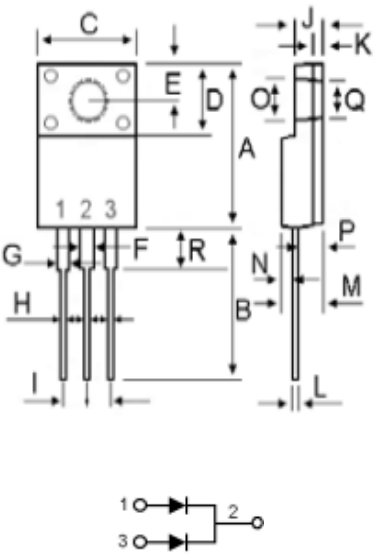
MBRF1045CT

10A Schottky Barrier Rectifiers

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

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

MECHANICAL DATA

- Case :TO-220F molded plastic
- Polarity : As marked on the body
- Mounting position : Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RoHS Compliant

Lead Free

CHARACTERISTICS	SYMBOL	MBR1045FCT	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	45	V
Maximum RMS Voltage	VRMS	31.5	V
Maximum DC Blocking Voltage	Vcc	45	V
Maximum Average Forward Rectified Current	I(AV)	10	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	IFSM	150	A
Maximum Forward Voltage at 5A DC	VF	0.55	V
Maximum DC Reverse Current @TC=25℃ at Rated DC Blocking Voltage @TC=125℃	IR	0.50 30	MA
Typical Junction Capacitance (Note 2)	CJ	360	pF
Typical Thermal Resistance (Note 3)	ROJC	4.0	℃/W
Operating Temperature Range	TJ	-55to+150	℃
Storage Temperature Range	TSTG	-55to+150	℃

RATINGS AND CHARACTERISTIC CURVES

FIG-1 FORWARD CURRENT DERATING CURVE

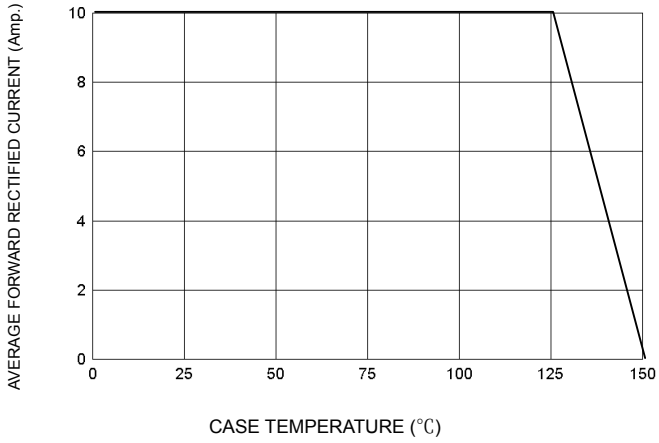


FIG-2 TYPICAL FORWARD CHARACTERISITICS

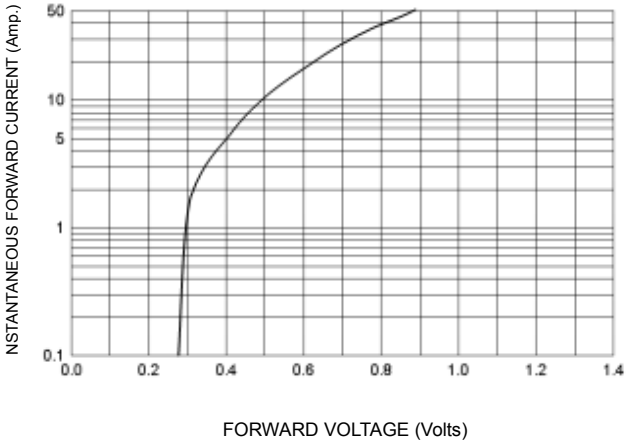


FIG-3 TYPICAL REVERSE CHARACTERISTICS

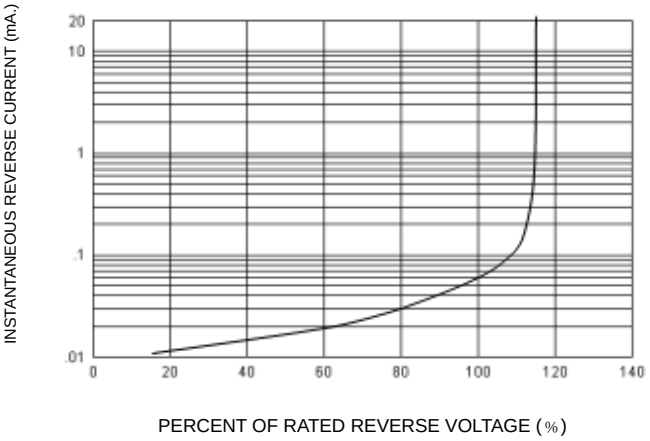


FIG-4 TYPICAL JUNCTION CAPACITANCE

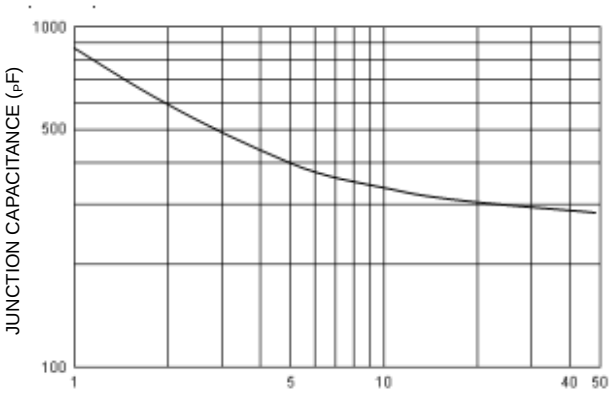


FIG-5 PEAK FORWARD SURGE CURRENT