

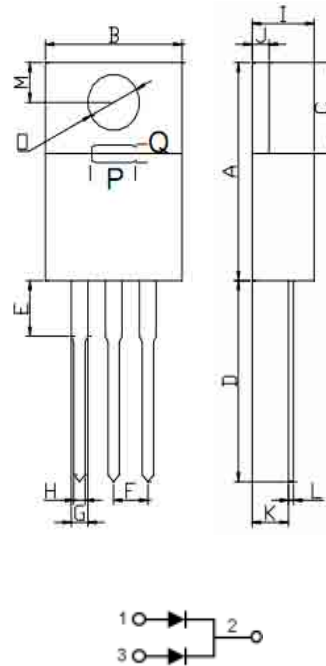
FEATURES

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

TO-220 PACKAGE



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	6.01	6.52
D	13.06	14.62
E	3.57	4.07
F	2.42	2.66
G	1.12	1.35
H	0.72	0.96
I	4.22	4.98
J	1.14	1.36
K	2.20	2.97
L	0.33	0.55
M	2.48	2.98
O	3.70	3.90
P	3.50	3.70
Q	1.20	1.40

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	MBR2045CT	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)	20	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	IFSM	200	A
Maximum Forward Voltage at 10A DC VF		0.65	V
Maximum DC Reverse Current @TC=25°C at Rated DC Blocking Voltage @TC=125°C	IR	0.15 50	MA
Typical Junction Capacitance	CJ	350	pF
Typical Thermal Resistance	ROJC	2.5	°C/W
Operating Temperature Range	TJ	-55to+175	°C
Storage Temperature Range	TSTG	-55to+175	°C

RATINGS AND CHARACTERISTIC CURVES

FIG-1 FORWARD CURRENT DERATING CURVE

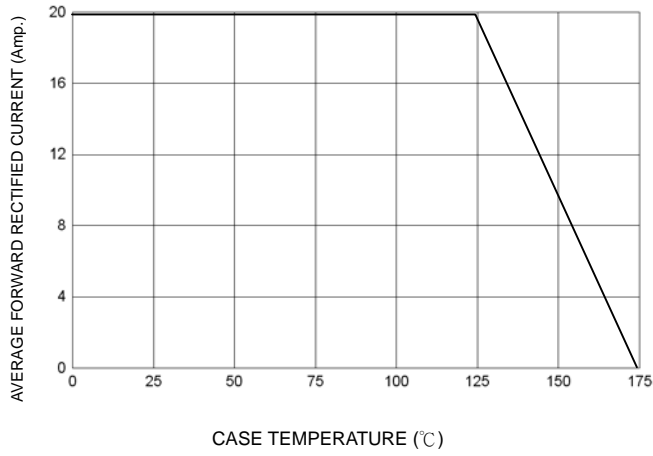


FIG-2 TYPICAL FORWARD CHARACTERISTICS

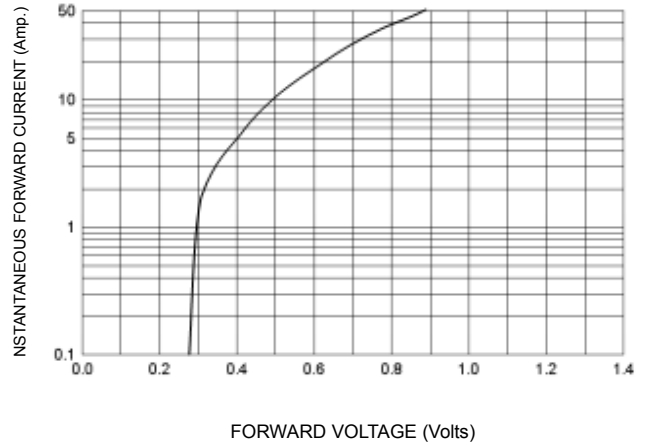


FIG-3 TYPICAL REVERSE CHARACTERISTICS

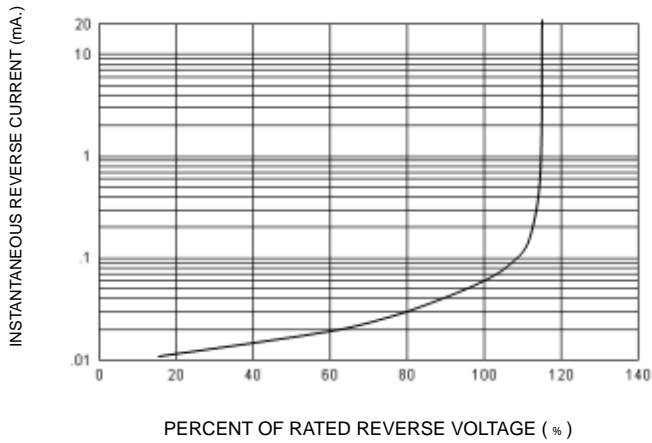


FIG-4 TYPICAL JUNCTION CAPACITANCE

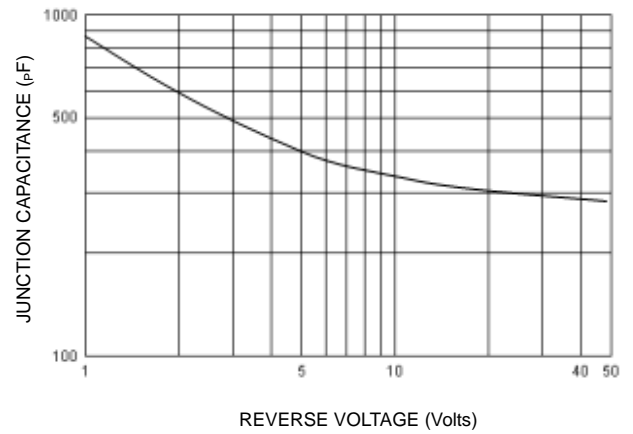


FIG-5 PEAK FORWARD SURGE CURRENT

