



Product Specification

AUSHKXIN Type

MBRF10200CT

Features

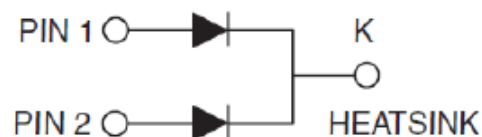
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- For surface mounted application
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- Guarding for over voltage protection
- For use in low voltage, high frequency inverters, Free wheeling, and polarity protection applications

Mechanical Characteristics

- Case: Epoxy, Molded
- Weight: 1.9grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max.for10 sec
- Shipped 50 units per plastic tube or tape reel packing 800/reel



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SCHOTTKY BARRIER RECTIFIER
10 AMPERES
200 VOLTS



Maximum Ratings and Electrical Characteristics

TC=25°C unless otherwise noted

Parameter	Symbol	MBRF10100CT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	Volts
Working peak reverse voltage	V_{RWM}	200	Volts
Maximum DC blocking voltage	V_{DC}	200	Volts
Maximum average forward rectified current (See Fig. 1)	Total device Per leg $I_{F(AV)}$	10 5.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load(JEDEC Method) per leg	I_{FSM}	110	Amps
Peak repetitive reverse current per leg at $t_p=2.0\mu s, 1KHz \quad T_J < 175^\circ C$	I_{RRM}	2.0	Amps
Voltage rate of change (rated V_R)	dv/dt	10,000	V/us
Maximum instantaneous forward voltage per leg (Note 4) at $I_F=5A, TC=25^\circ C$ at $I_F=5A, TC=125^\circ C$	V_F	0.89 0.79	Volts
Maximum reverse current per leg at working peak reverse voltage (Note 4)	I_R	5 5	μA mA
Typical thermal resistance per leg	$R_{\theta JC}$	4.0	$^\circ C/W$
Operating junction temperature range	T_J	-55 to +175	$^\circ C$
Storage temperature range	T_{STG}	-55 to +175	$^\circ C$
Electrostatic Discharge Voltage. JEDEC Method.ESD HBM.Contact.	V_{ESD}	± 8 (contact)	KV

- Notes:**
1. Clip mounting (on case), where lead does not overlap heatsink with 0.110" offset
 2. Clip mounting (on case), where leads do overlap heatsink
 3. Screw mounting with 4-40 screw, where washer diameter is < 4.9 mm (0.19")
 4. Pulse test: 300us pulse width, 1% duty cycle



RATINGS AND CHARACTERISTIC CURVES

$T_A = 25^\circ\text{C}$ unless otherwise noted

Fig.1-Forward Current Derating Curve

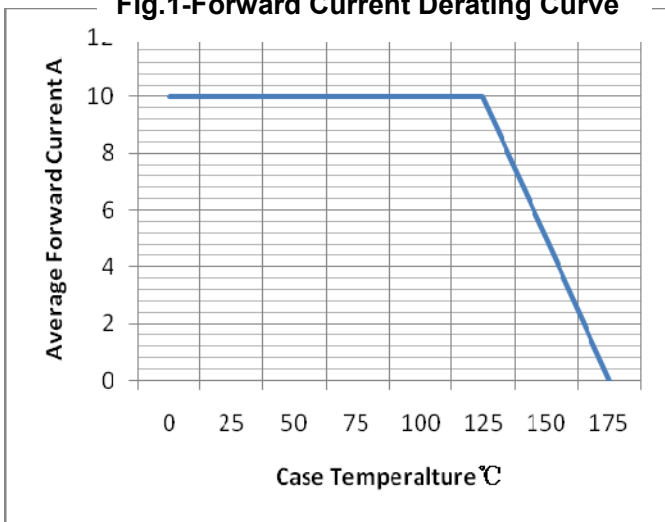


Fig.2-Maximum Non-Repetitive Peak Forward Surge Current Per Leg

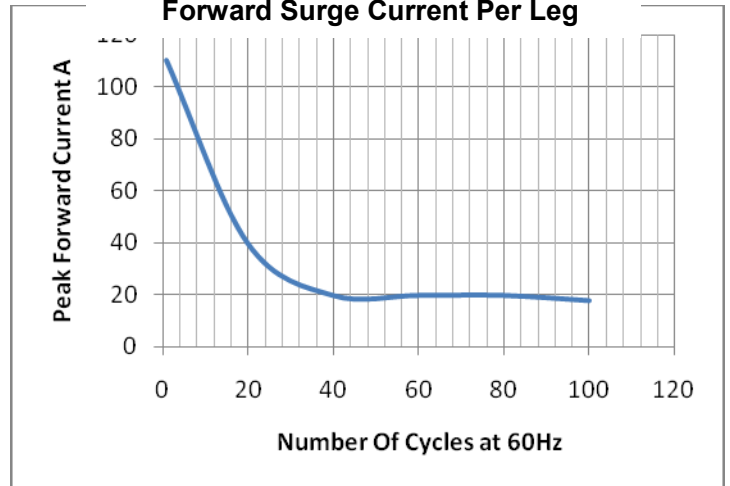


Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg

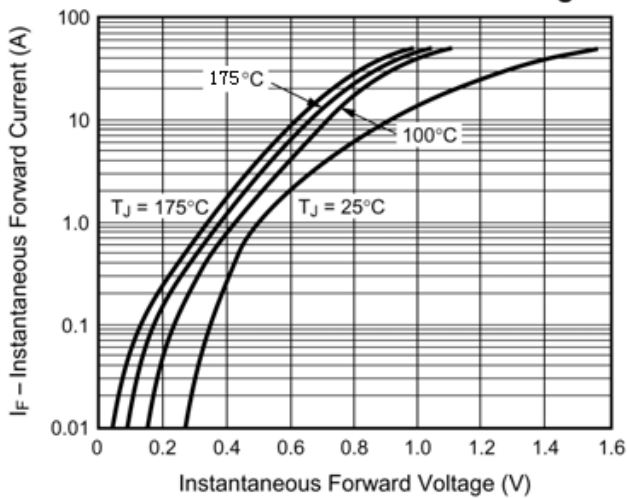


Fig. 4 – Typical Reverse Characteristics Per Leg

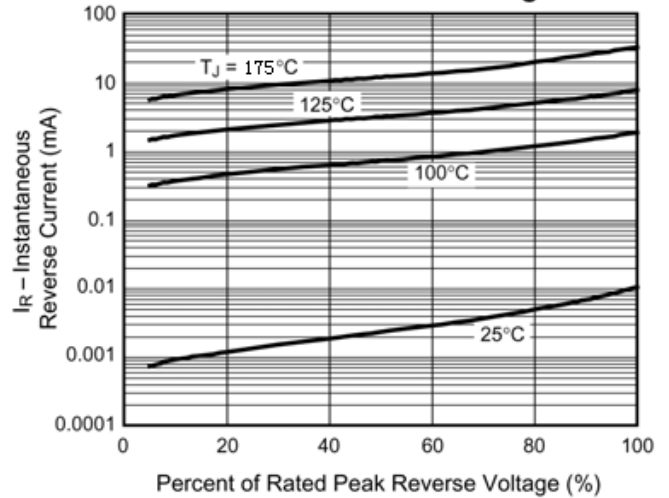
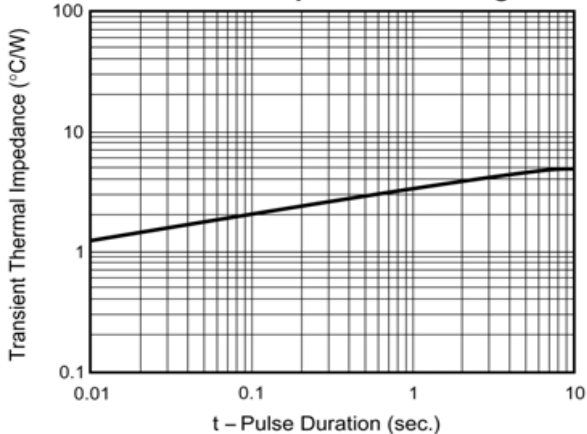


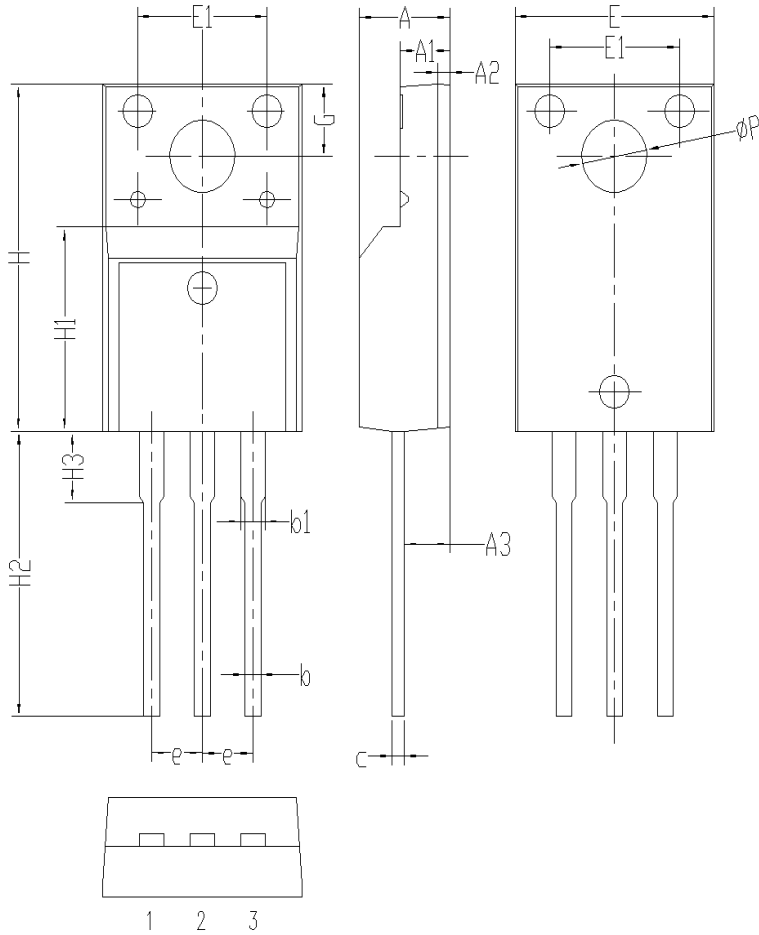
Fig. 5 – Typical Transient Thermal Impedance Per Leg





Package Outline (TO-220F)

UNIT:mm



	单位: mm		
	MIN	NOM	MAX
A	4.35	4.55	4.75
A 1	2.3	2.5	2.7
A 2	0.4	0.6	0.8
A 3	2.1	2.3	2.5
b	0.6	0.8	1.0
b 1	1.0	1.2	1.4
c	0.3	0.5	0.7
e	2.3	2.5	2.7
E	9.8	10	10.2
E 1	6.3	6.5	6.7
H	15.6	15.8	16.0
H 1	8.8	9	9.2
H 2	12.9	13.2	13.5
H 3	3.1	3.3	3.5
G	3.1	3.3	3.5
ΦP	3.1	3.3	3.5