

MBRF3040CT~MBRF30200CT

Rev.A Feb.-2024

5 é / Descriptions

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Schottky Barrier Diode in a TO-220F Plastic Package.

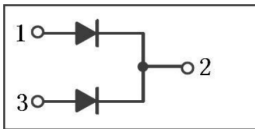
α^a / Features

z ô C â k ä | ä g ož
low poer losses,High efficiency operation.

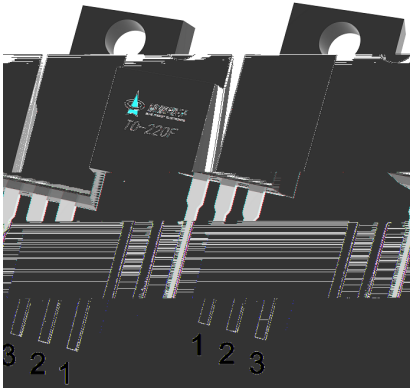
Đ ÷ / Applications

9 ä È ä "J ~ k •¼ › k Ò v 8 â 'k 58 OTM 8 â 'k *) *) ô E ~ y P F g ' ož
For use in high frequency inverters, switching power supplies, freewheeling diodes,OR-ing diode, dc-to-dc converters and reverse battery protection.

Ã W] Ô . / Equivalent Circuit



• Ô - æ / Pinning



PIN1 y Anode PIN 2 y Cathode PIN 3 y Anode

, M V / Marking

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See Marking Instructions.

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DATA SHEET

Electrical Characteristics(Ta=25 ;)

@ f Parameter	... Z Symbol	f › Rating						% y Unit
		MBRFXCT						
		3040	3045	3060	30100	30150	30200	
Peak Repetitive Reverse Voltage	V _{RM}	40	45	60	100	150	200	V
RMS Reverse Voltage	V _{RMS}	28	32	42	70	105	140	V
DC Blocking Voltage	V _{DC}	40	45	60	100	150	200	V
Average Rectified Forward Current	I _{F(AV)}	15 h 2						A
Forward Voltage at 15A	V _F	0.75	0.80	0.88	0.92	0.95		V
Instantaneous Ta=25 ºC Reverse Current	I _R	0.1			0.05			mA
Ta=125 ºC		20			20			
Typical Junction Capacitance ⁽¹⁾	C _J	600	400				pF	
Non Repetitive Peak Surge Current	I _{FSM}	200						A
Thermal Resistance ⁽²⁾ Junction to Case	R _{JA}	45						ºC/W
Junction and Storage Temperature Range	T _j T _{stg}	-55~150			-55~175			ºC

Notes

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 10cmX10cmX1mm copper pad areas.

Electrical Characteristic Curve

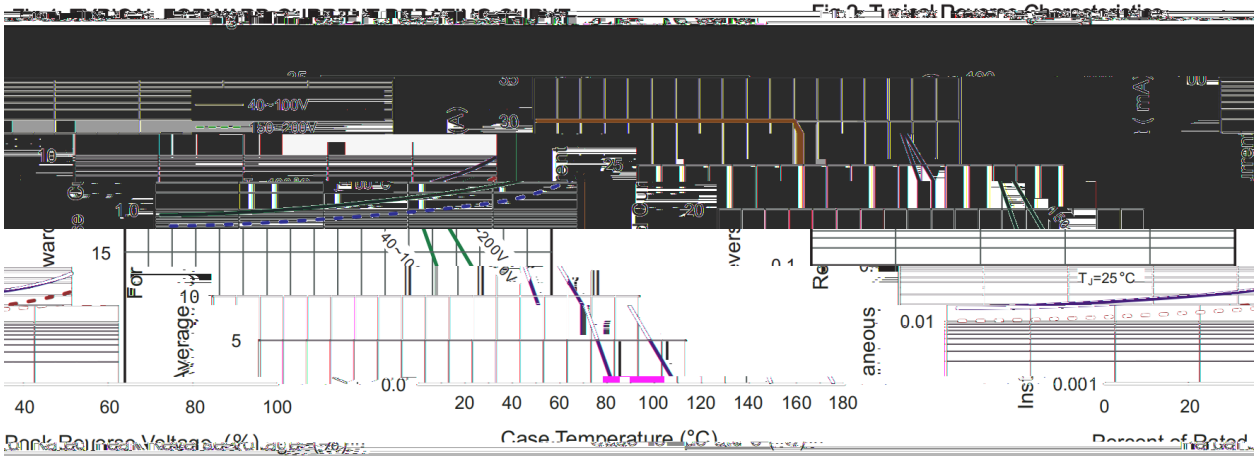


Fig.3 Typical Forward Characteristic (per leg)

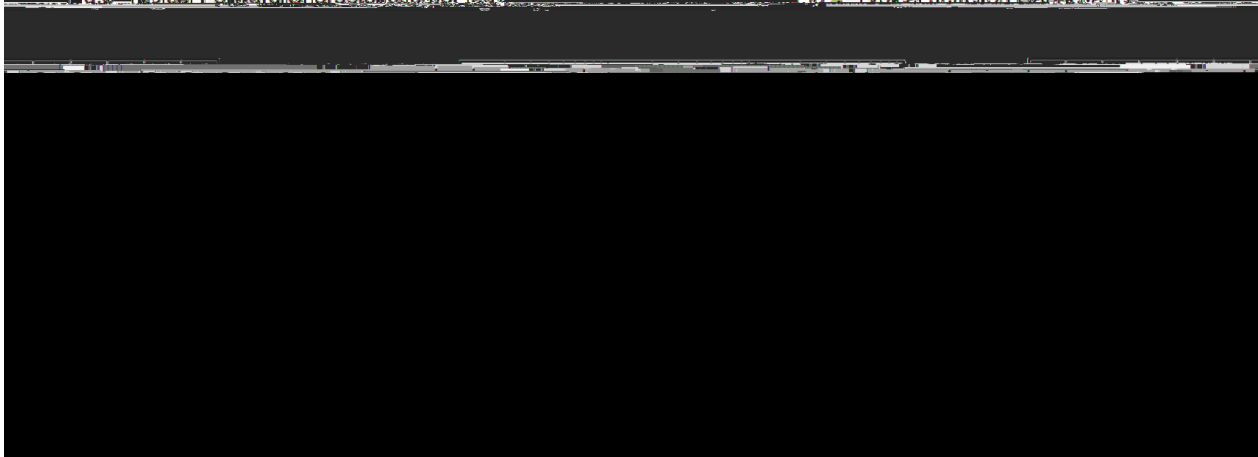


Fig.4 Typical Junction Capacitance

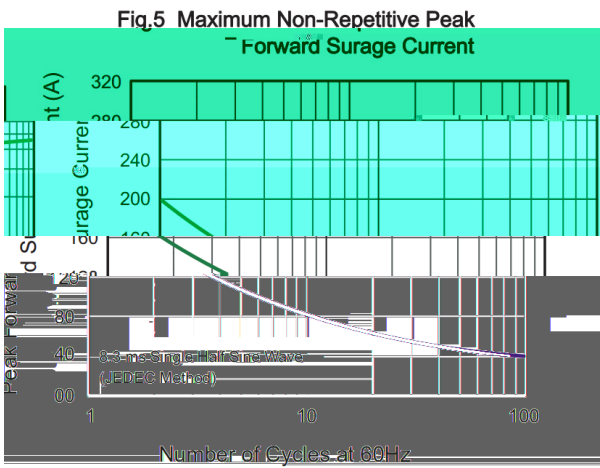


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

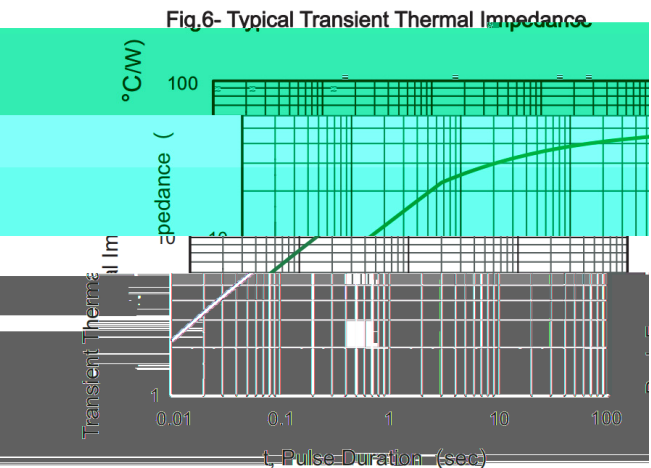
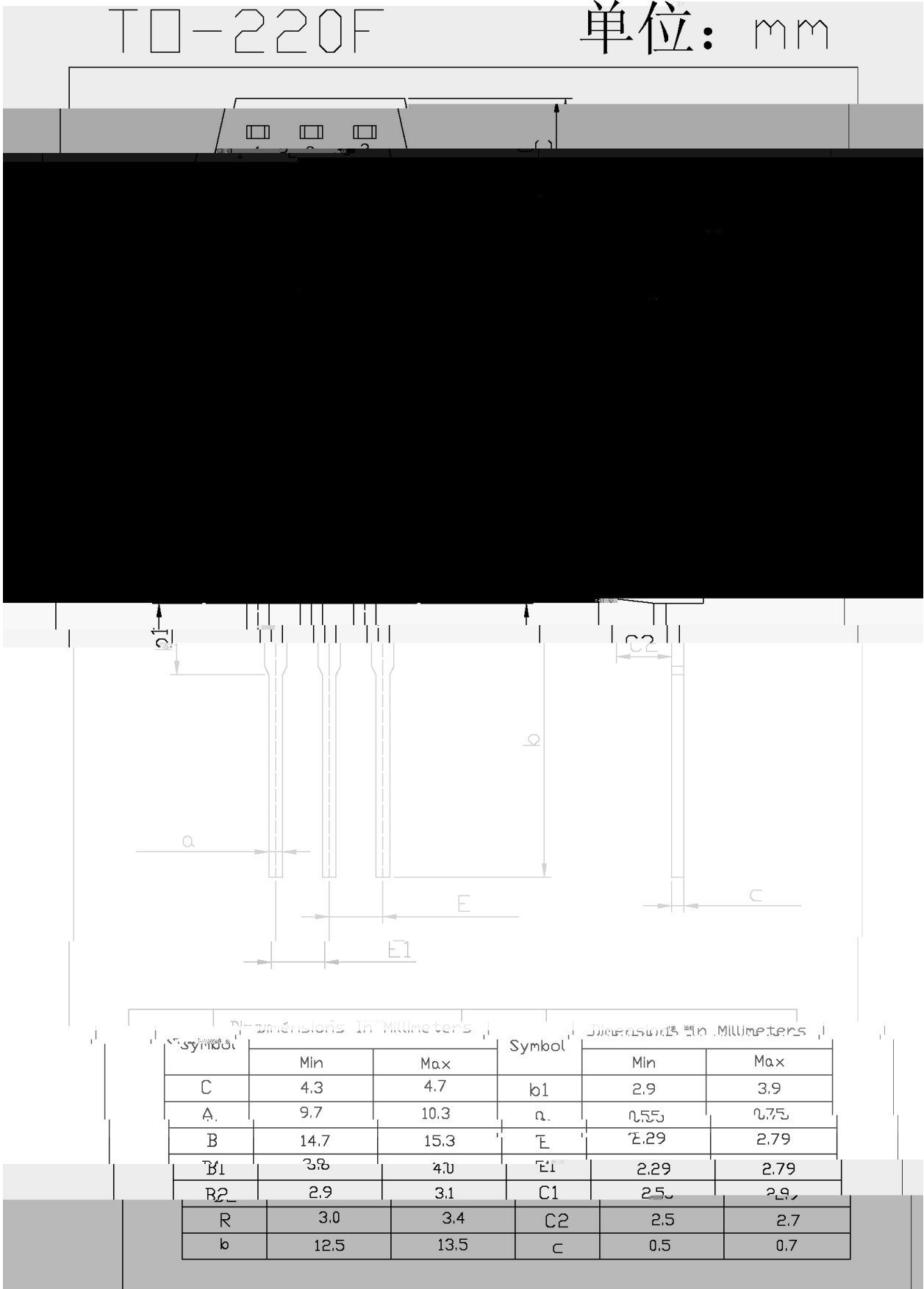


Fig.6 Typical Transient Thermal Impedance

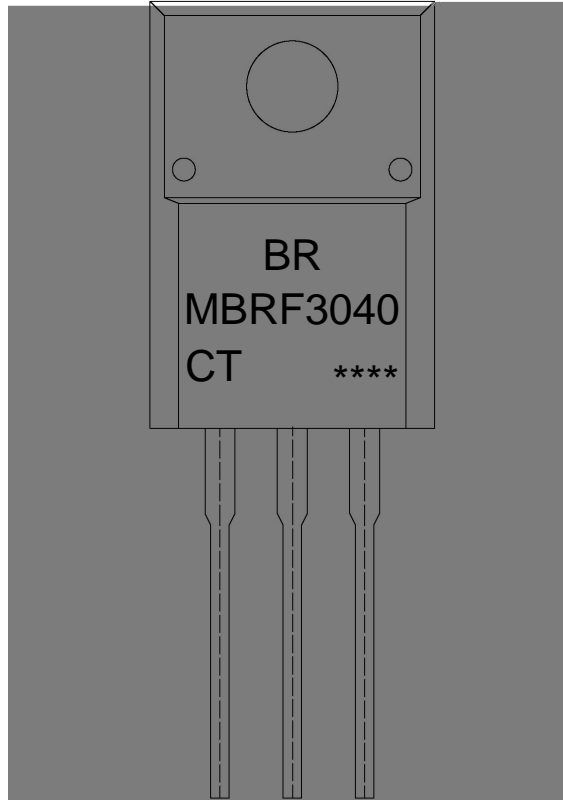
∅ □ =) ∅ / Package Dimensions



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, M y f / Marking Instructions



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Note:

- BR: Company Code
- MBRF3040 y Product Type Code
- CT: Internal Structure
- ****: Lot No. Code, code change with Lot No

Marking

Type number	Marking code
MBRF3040CT	BR/MBRF3040/CT/****
MBRF3045CT	BR/MBRF3045/CT/****
MBRF3060CT	BR/MBRF3060/CT/****
MBRF30100CT	BR/MBRF30100/CT/****
MBRF30150CT	BR/MBRF30150/CT/****
MBRF30200CT	BR/MBRF30200/CT/****



ring(Pb-Free)

Time:60~90sec.

Duration:5 r 0.5sec.

- /sec.

ime:10±1 sec

Dimension ;>û p . (unit Åmm³)