

MBRF3040CT~MBRF30200CT

Rev.A Feb.-2024



DATA SHEET

5 é / Descriptions

: 5 , .> // x RK Ô Â 8 â 'ož

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

□^a / Features

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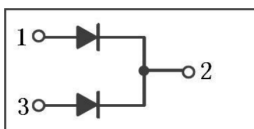
low poer losses,High efficiency operation.

Đ ÷ / Applications

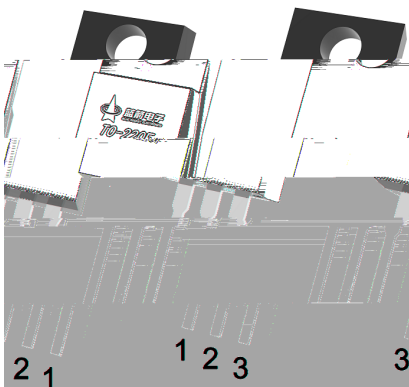
9 ä È ä " J ~ k • ¼ > k Ò v 8 â ' k 5 8 O T M 8 â ' k *) *) ô E ~ y P F g ' ož

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



• Ů - æ / Pinning



PIN1 y Anode

PIN 2 y Cathode

PIN 3 y Anode

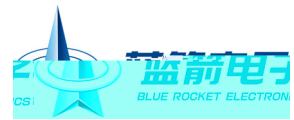
, M V / Marking

• - ~^a ¢ ož

See Marking Instructions.

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Electrical Characteristics(Ta=25 ;)

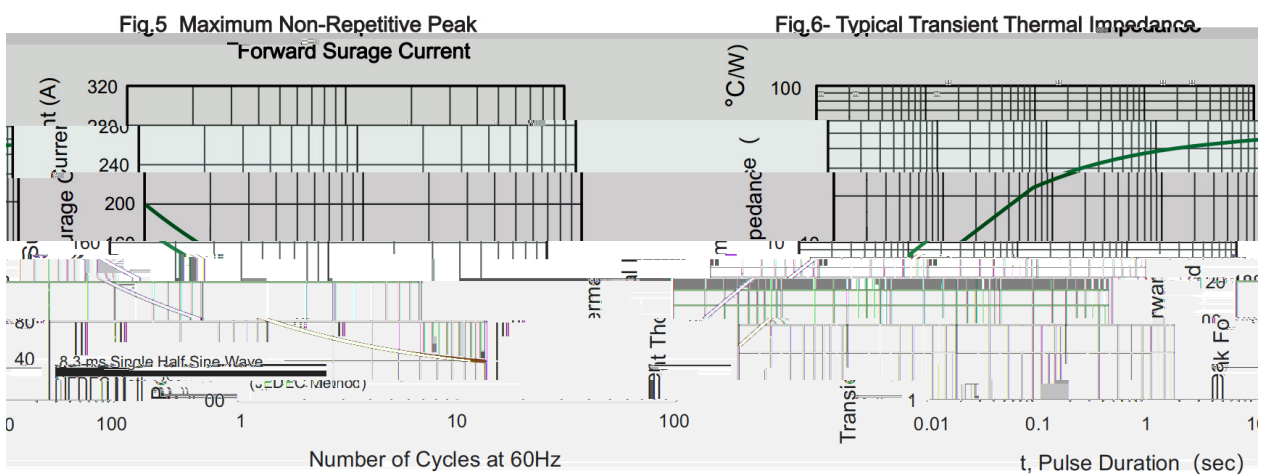
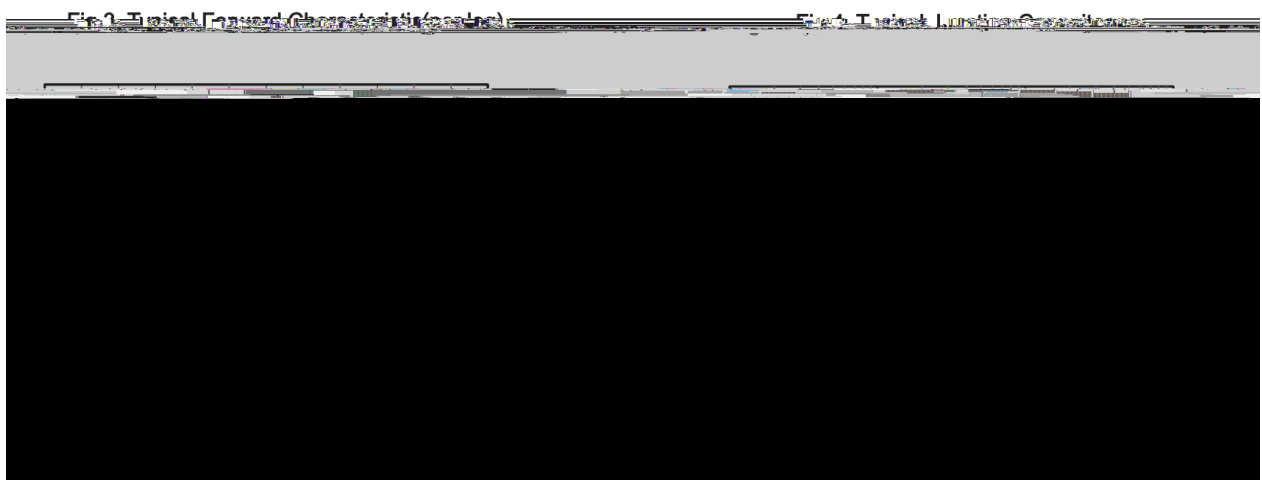
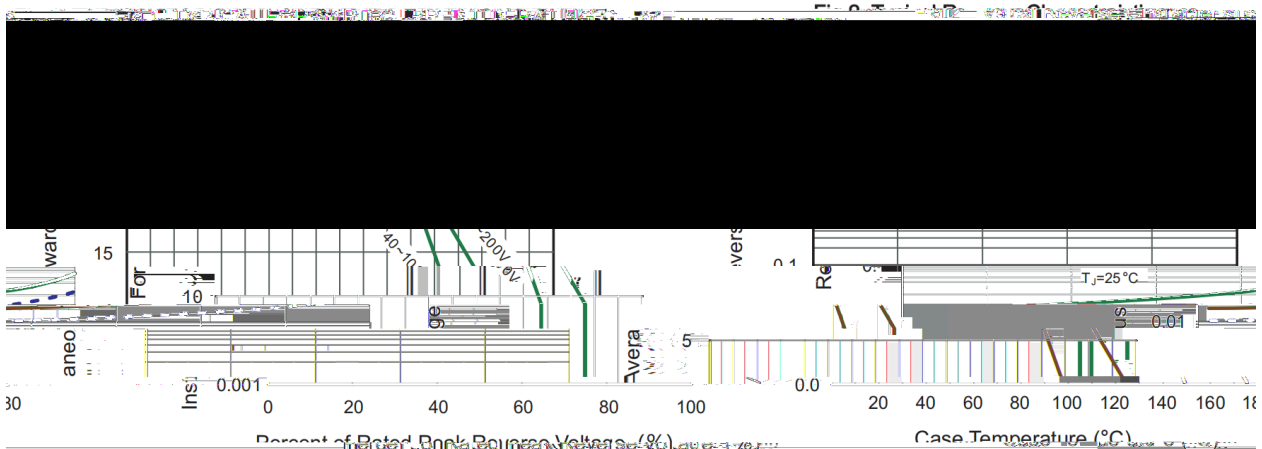
@ f Parameter	... Z Symbol	f > Rating						% y Unit
		MBRFXXCT						
		3040	3045	3060	30100	30150	30200	
PeakRepetitive Reverse Voltage	V _{RM}	40	45	60	100	150	200	V
RMS Reverse Voltage	V _{RMS}	28	32	42	70	105	140	V
DC Blocking Voltage	V _{DC}	40	45	60	100	150	200	V
Average Rectified Forward Current	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.

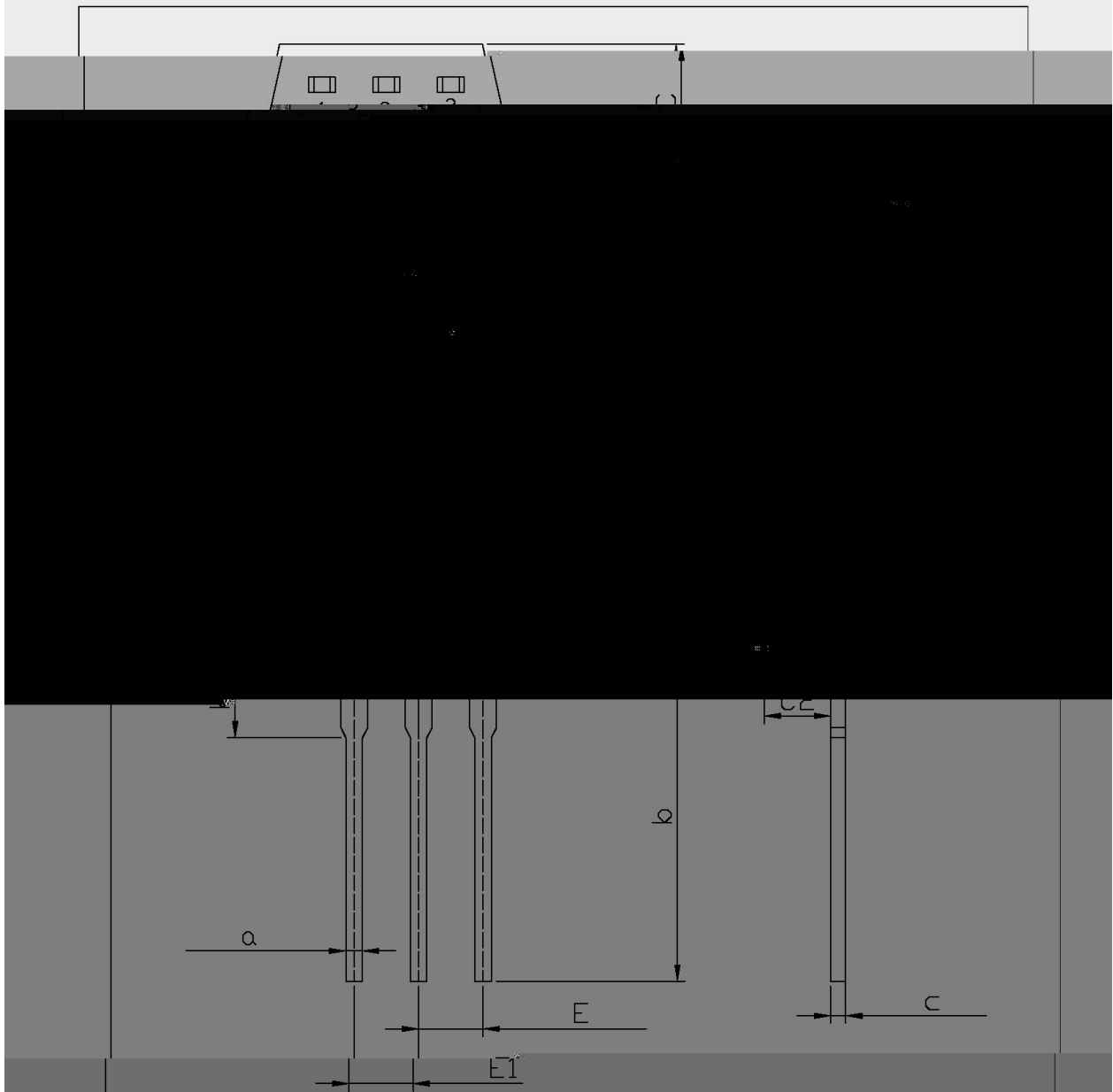
Electrical Characteristic Curve



Ø α =) ¢ / Package Dimensions

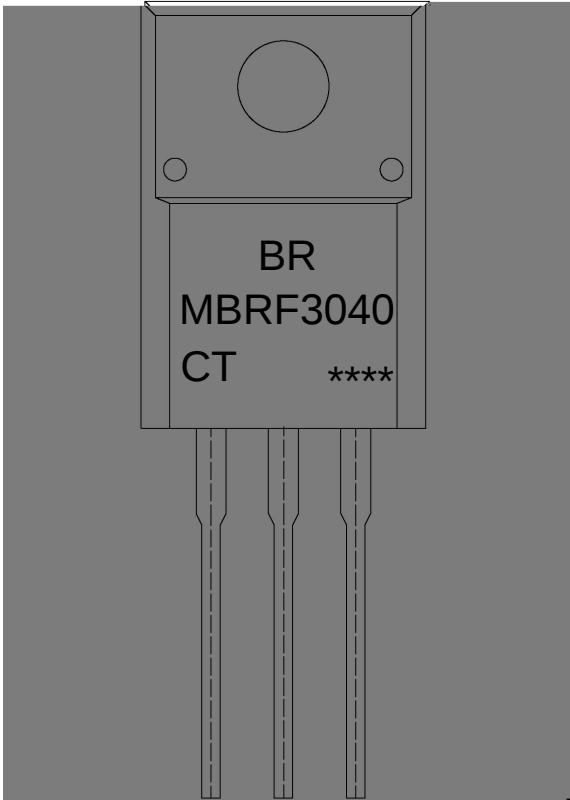
T0-220F

单位: 



Dimensions In Millimeters			Dimensions In Millimeters		
	Min	Max	Symbol	Min	Max
C	4.3	4.7	b1	2.9	3.9
A	9.7	10.3	a	0.55	0.75

Marking Instructions



Marking code
(8 characters)
3 (8 characters)
) :
y
y D Z W A k š y D Z J

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/****

G PD t ... • Ž Ć (x /) / Temperature Profile for Dip Soldering(Pb-Free)

/-Áĉ @Ó—g y... qfu„ ,a!òqC Á

- a Ć y

1o• Ä ½ “† 25 ½150 - k Ž • 60 ½90sec;

2o• Q > “† 255 r5 - k Ž • 4 Ò 5 r0.5sec;

3o•D N ò i Ò 0 ,† 2 ½10 - /sec.

Note:

1.Preheating:25~150 - , Time:60~90sec.

2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“†y 270 r5 - Ž • y 10 r1 sec. Temp.:270±5 Time:10±1 sec

G P á / Packaging SPEC.

• ^ x / BULK

Package Type	Units ;>û !H		Dimension ;>û p . (unit Åmm³)	
7>û ~ E	Units/Bag />Ä	Bags/Inner Box >Ä-	Units/Inner Box	Inner B-8.9()els/-9.3(r Box)9.3(r -8.9())TJ /TT12 1 Tf 1.0014751.2222 TD 0 Tc 0 Tw <0a08>Tj /TT14 1 Tf 1.0004 0 TD