

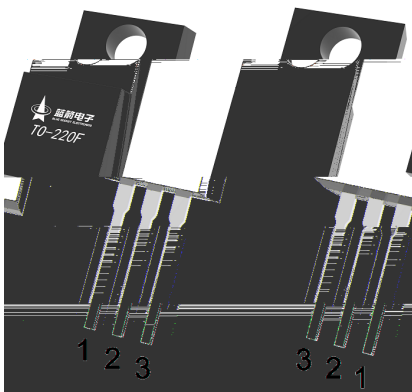
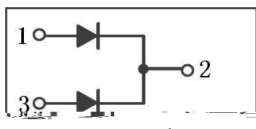
TO-220F

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

Low poer losses, High efficiency operation.

OR-ing      DC-DC

For use in high frequency inverters, switching power supplies, freewheeling diodes, OR-ing diode, dc-to-dc converters and reverse battery protection.



PIN1 Anode      PIN 2 Cathode      PIN 3 Anode

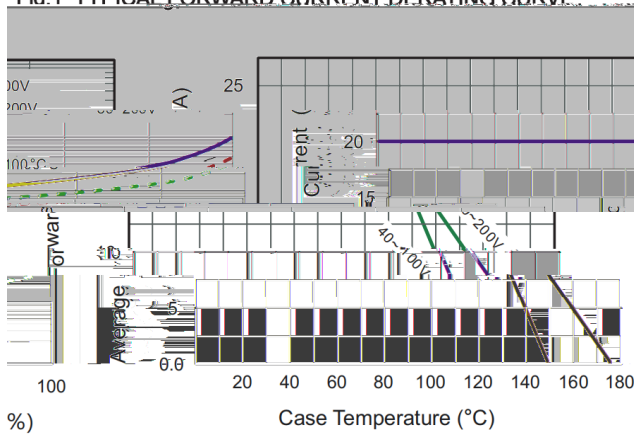
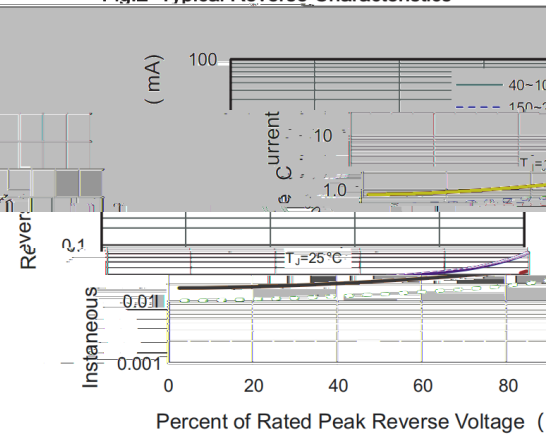
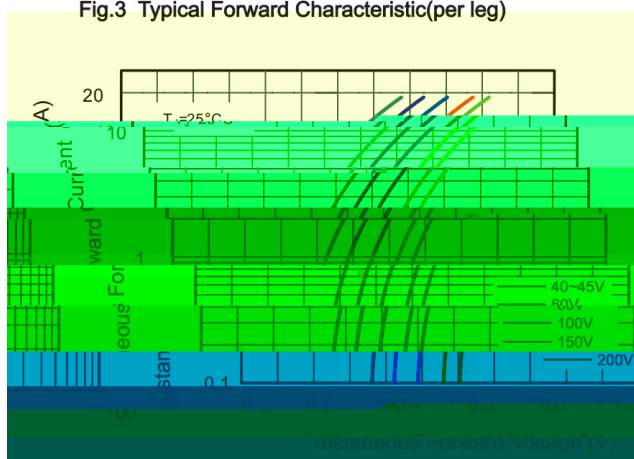
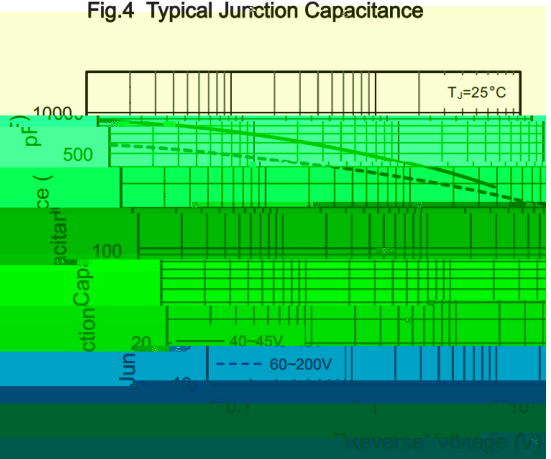
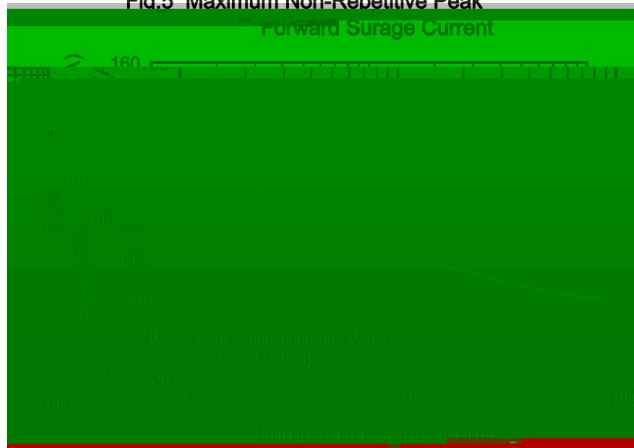
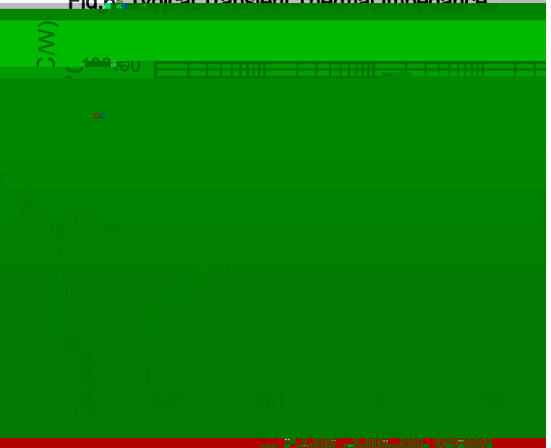
See Marking Instructions.

Parameter	Symbol	Rating						Unit
		MBRFXXCT						
		2040	2045	2060	20100	20150	20200	
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	$I_{F(AV)}$	10X2						A
Forward Voltage at 10A	$V_F$	0.70		0.75	0.85	0.90	0.92	V
Instantaneous Reverse Current Ta=25°C Ta=125°C	$I_R$	0.1			0.05			mA
		20			20			
Typical Junction Capacitance <sup>(1)</sup>	$C_J$	600		400				pF
Non Repetitive Peak Surge Current	$I_{FSM}$	150						A
Thermal Resistance Junction to Case <sup>(2)</sup>	$R_{JA}$	45						°C/W
Junction and Storage Temperature Range	$T_j$ $T_{stg}$	-55~150				-55~175		°C

**Notes**

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

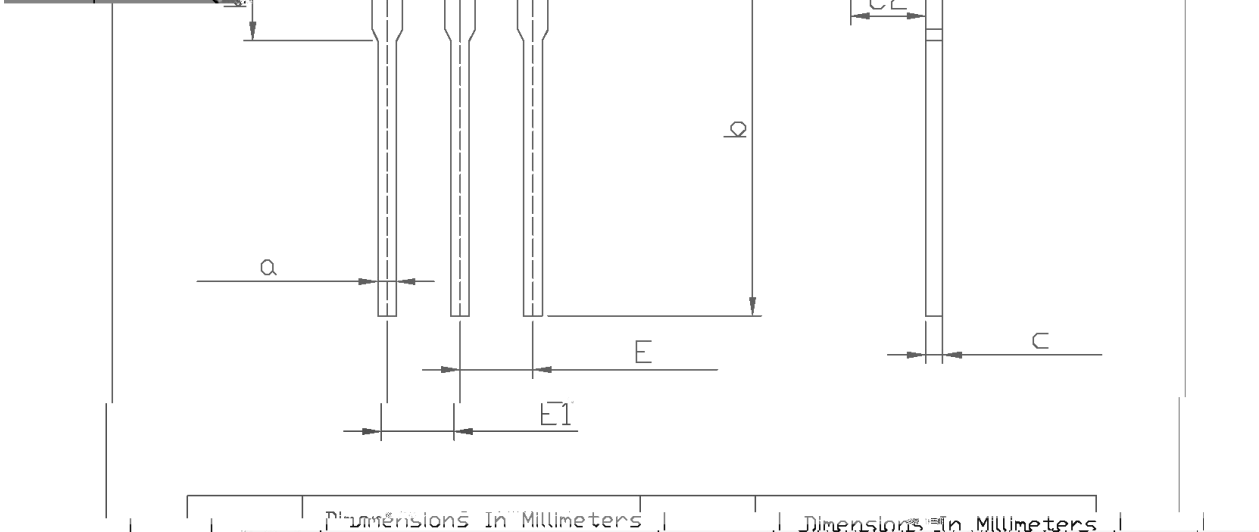
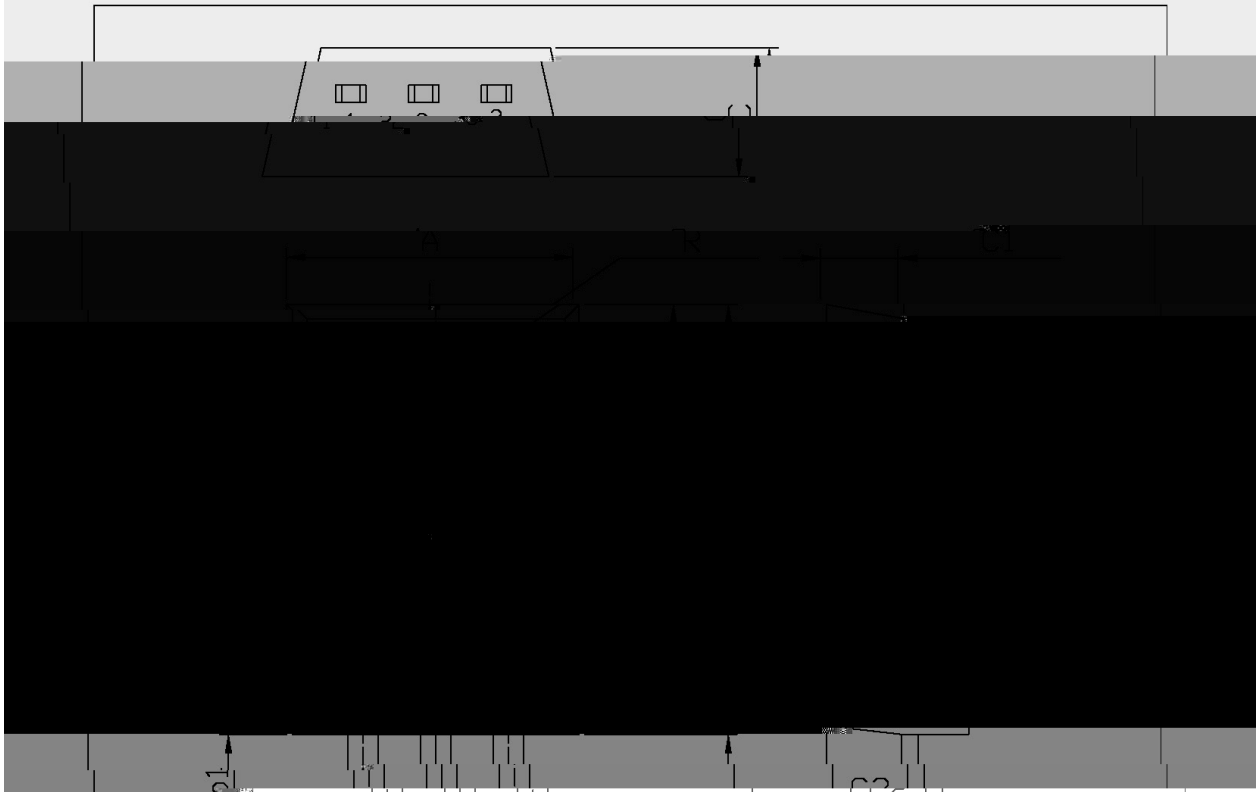
(2) P.C.B. mounted with 10cmX10cmX1mm copper pad areas.

**Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE**

**Fig.2 Typical Reverse Characteristics**

**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**


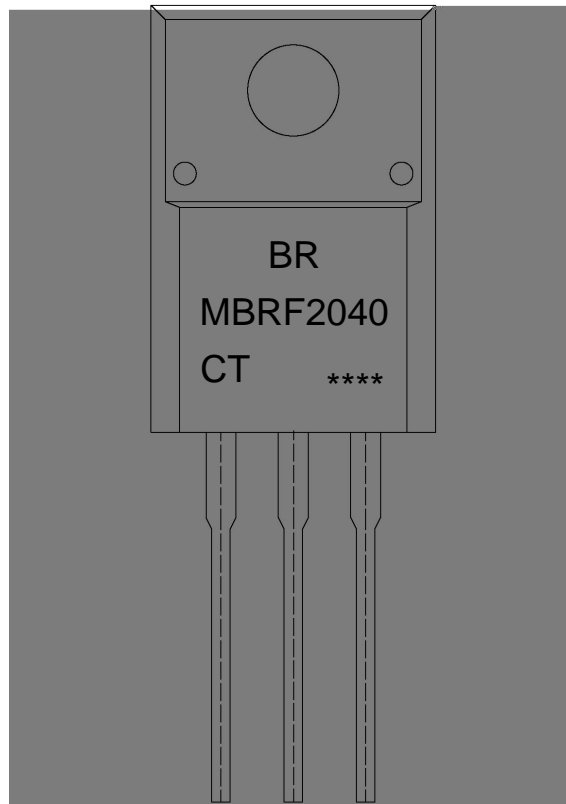


TO-220F

单位: mm



Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	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
B	14.7	15.3	E	2.29	2.79
B1	3.8	4.0	E1	2.29	2.79
B2	2.9	3.1	C1	2.5	2.9
R	3.0	3.4	C2	2.5	2.7
b	12.5	13.5	c	0.5	0.7

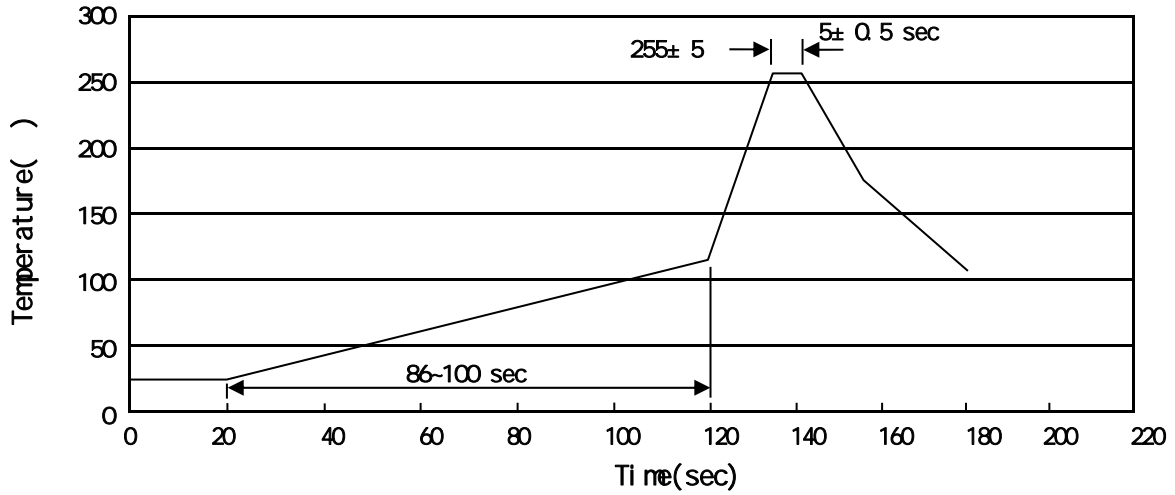


BR  
MBRF2040  
CT:  
\*\*\*\*

**Note:**

BR:                   Company Code  
MBRF2040           Product Type  
CT:                   Internal Structure  
\*\*\*\*:                 Lot No. Code, code change with Lot No.

Type number	Marking code
MBRF2040CT	BR/MBRF2040/CT/****
MBRF2045CT	BR/MBRF2045/CT/****
MBRF2060CT	BR/MBRF2060/CT/****
MBRF20100CT	BR/MBRF20100/CT/****
MBRF20150CT	BR/MBRF20150/CT/****
MBRF20200CT	BR/MBRF20200/CT/****



Note:

- |   |        |           |  |
|---|--------|-----------|--|
| 1 | 25-150 | 60-90sec; | 1. Preheating: 25~150 , Time: 60~90sec.    |
| 2 | 255±5  | 5±0.5sec; | 2. Peak Temp.: 255±5 , Duration: 5±0.5sec. |
| 3 | 2-10   | /sec.     | 3. Cooling Speed: 2~10 /sec.               |

270±5

10±1 sec.

Temp.: 270±5

Time: 10±1 sec

/ BULK

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135x190	237x172x102	560x245x195

/ TUBE

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532x31.4x5.5	555x164x50	575x290x180