

MBRF40200CT

SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

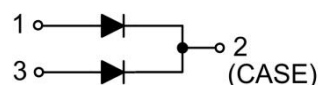
The MBRF40200CT is a Schottky Barrier Rectifier with high efficiency, low power dissipation and high current capacity. It can be applied in low voltage, high frequency inverters, polarity protection and free wheeling applications.

The MBRF40200CT meet the ROHS and Green Product requirement with full function reliability approved.



FEATURE

- *High Surge Capability
- *High efficiency, low power dissipation, high current capability, low forward voltage drop



MARKING(The image is for reference only. Please take the actual product as the standard)



MBRF40200CT=Device Code

XXXXX=Date Code

Solid Dot=Green molding compound

ABSOLUTE MAXIMUM RATINGS(TA=25°C, unless otherwise specified.)

PARAMETER		SYMBOL	RATINGS	UNIT
Recurrent Peak Reverse Voltage		VRRM	200	V
RMS Voltage		VR(RMS)	140	V
DC Blocking Voltage		VR	200	V
Average Forward Rectified Output Current (TC=105°C)	Per Leg	Io	20	A
	Total		40	
DC Reverse Current	TC=25°C	IR	0.5	mA
	TC=100°C		30	mA
Peak Repetitive Forward Current (Rated VR, Square Wave, 20 kHz) (TC=135°C)		IFRM	40	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave		IFSM	180*2	A
Peak Repetitive Reverse Surge Current (Note 3)		IRRM	1.0	A
Voltage Rate of Change (Rated VR)		dv/dt	10000	V/μs
Junction Capacitance (Note 4)		CJ	150	pF
Operating Junction Temperature		TJ	175	°C
Storage Temperature		TSTG	-55 ~ +150	°C
Junction to Case		θJC	4	°C/W

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ELECTRICAL CHARACTERISTICS (TA=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	V _(BR)	IR=0.2mA	200			V
Instantaneous Forward Voltage Drop	V _F	IF=20A, Tc=25°C			0.95	V
		IF=20A, Tc=125°C		0.75		V
		IF=40A, Tc=25°C			1.05	V
		IF=40A, Tc=125°C		0.90		V
Instantaneous Reverse Current	IR	Rated DC Voltage, Tc=25°C			10	μA
		Rated DC Voltage, Tc=125°C			10	mA

Notes: 1. Absolutemaximumratingsarethosevaluesbeyondwhichthedevicecouldbepermanentlydamaged.

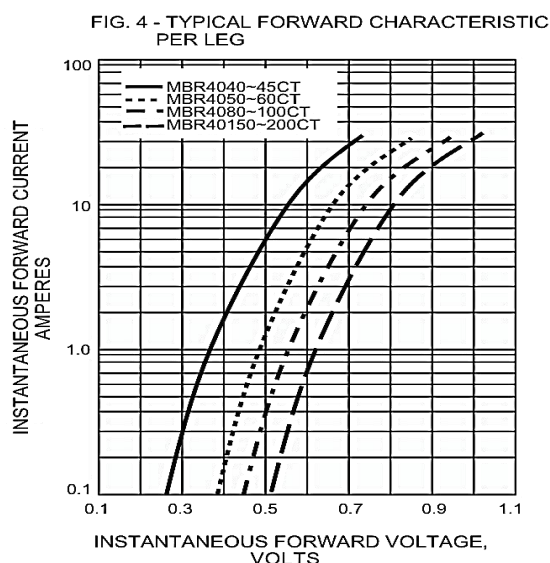
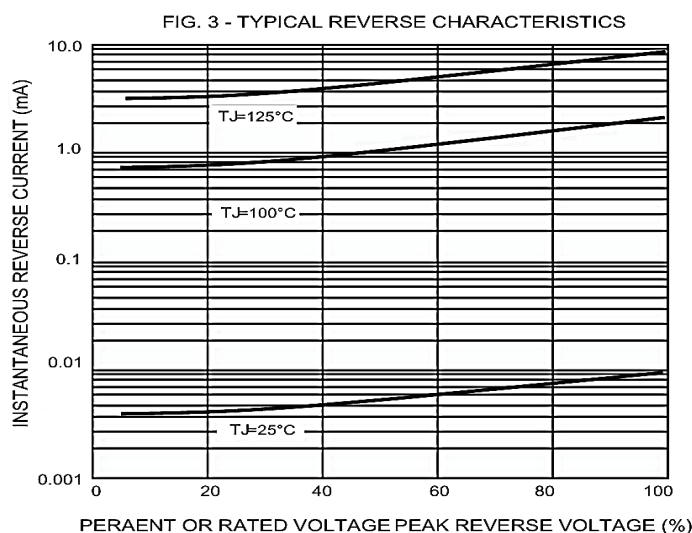
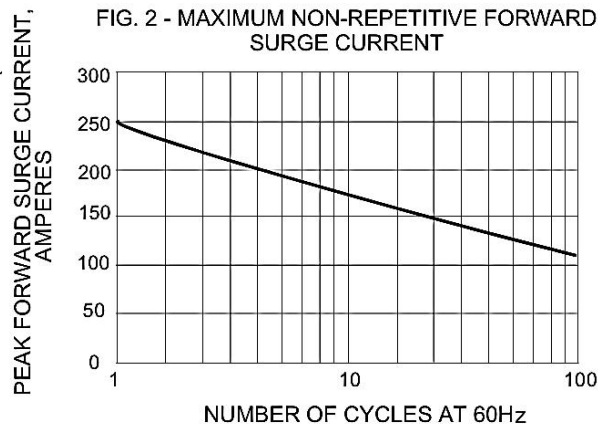
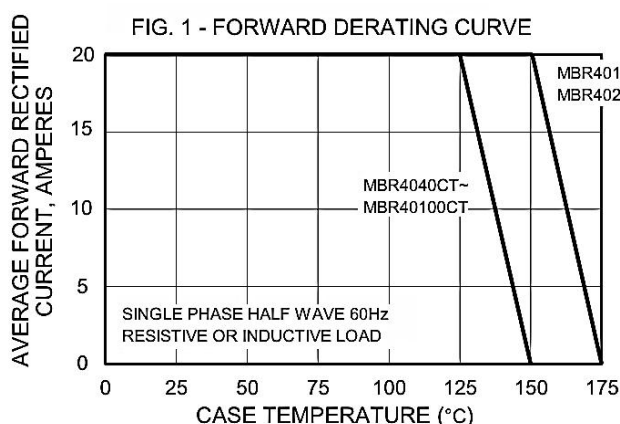
Absolutemaximumratingsarestressratingsonlyandfunctionaldeviceoperationisnotimplied.

2. 2.0μsPulseWidth, f=1.0KHz.

3. PulseTest: PulseWidth=300μs, DutyCycle≤2.0%.

4. Applied V_F=4.0Vandf=1.0MHz.

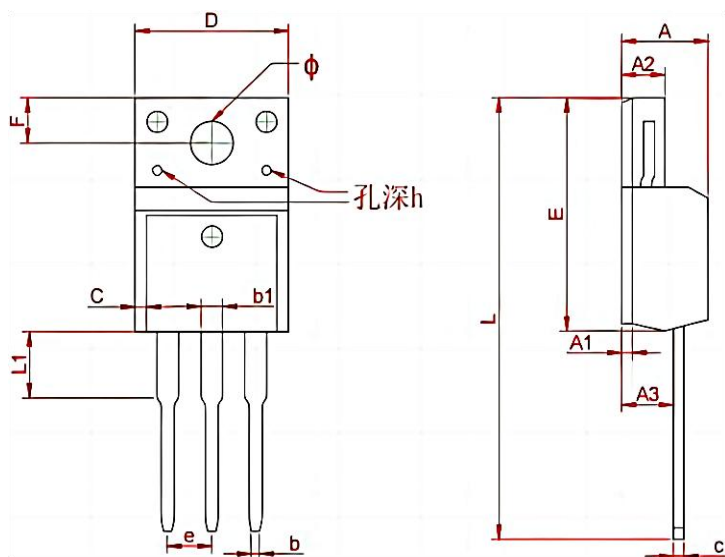
TYPICAL CHARACTERISTICS



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TO - 220F Package Outline Dimensions



Symbol	Dimensions In Millimeters	
	Min	Max
A	4.300	4.750
A1	0.7 REF	
A2	2.300	2.850
A3	2.500	2.900
b	0.380	0.420
b1	1.220	1.280
C	1.08	1.200
c	0.480	0.520
D	10.15	10.450
E	15.700	15.950
e	2.574 TYP	
F	3.470 REF	
y	3.200 REF	
h	0.000	0.800
L	28.780	28.900
L1	2.990	3.100

TO - 220F Packing Information

Package version	Tube dimensions LxWxH (mm)	Per Tube (pcs)	Tube per box	Inner box dimensions LxWxH (mm)	PCS/ Inner box	Outer box dimensions LxWxH(mm)	PCS/ Outer box
TO-220F	530*32*7	50	20	580*155*50	1000	602*277*188	5000