

MBR2020CT THRU MBR20200CT

AXIAL SCHOTTKY BARRIER RECTIFIER

TO-220CB Axial Schottky Barrier Rectifier

Features

- Low forward voltage drop
- High forward surge current capability
- High reliability
- High current capability

Reverse Voltage
20-200 V

Forward Current
20 Ampere

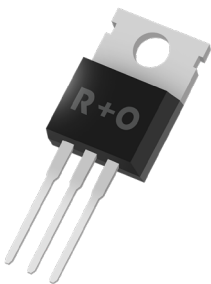
Applications

For use in low voltage high frequency inverters, free wheeling,DC/DC converters, and polarity protection applications.

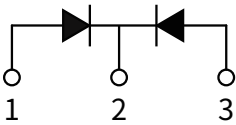
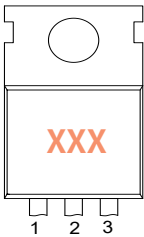
Mechanical Data

- Case: TO-220CB
- Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026

TO-220CB



Function Diagram



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR 2020CT	MBR 2045CT	MBR 2060CT	MBR 2080CT	MBR 20100CT	MBR 20150CT	MBR 20200CT
Device marking code			MBR 2020CT	MBR 2045CT	MBR 2060CT	MBR 2080CT	MBR 20100CT	MBR 20150CT	MBR 20200CT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	20	45	60	80	100	150	200
Maximum RMS Voltage	V_{RMS}	V	14	32	42	56	70	105	140
Maximum DC blocking Voltage	V_{DC}	V	20	45	60	80	100	150	200
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	20						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	200						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta JC}$	°C /W	2.5						
	$R_{\theta JA}$	°C /W	65						

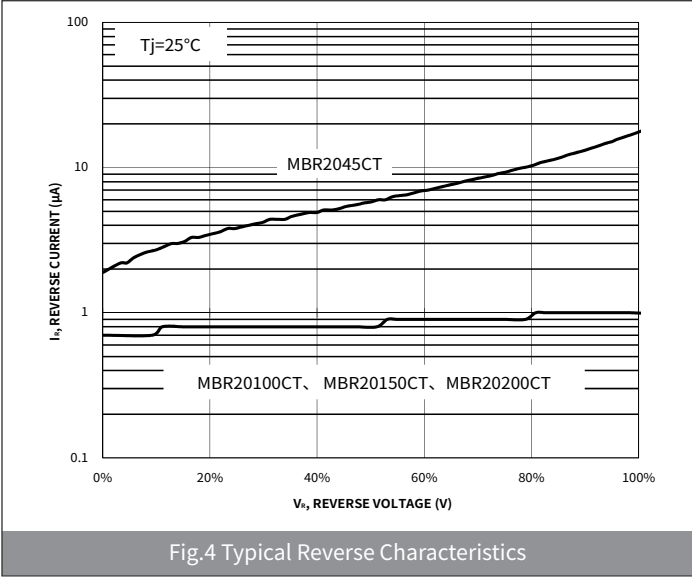
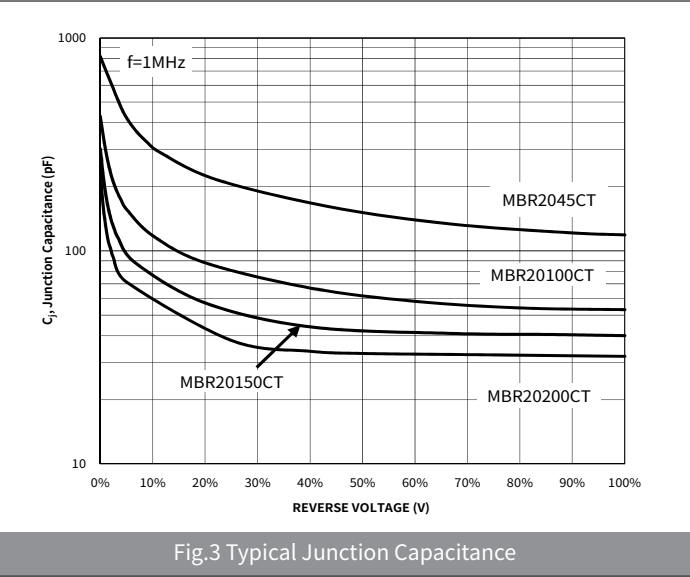
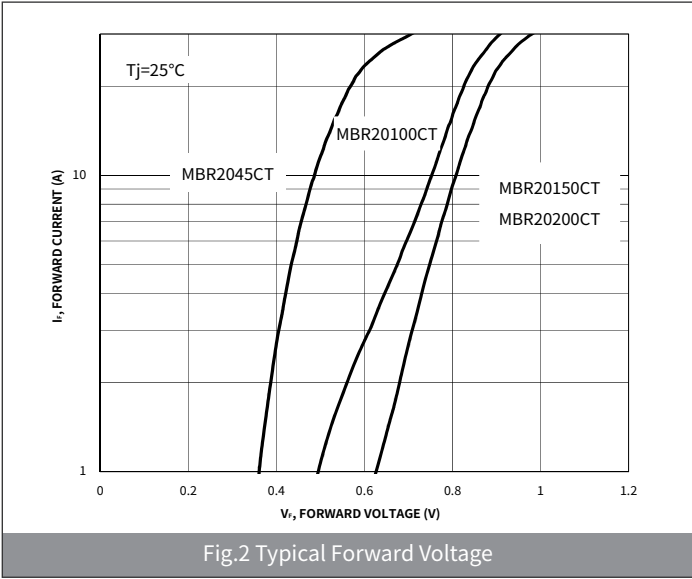
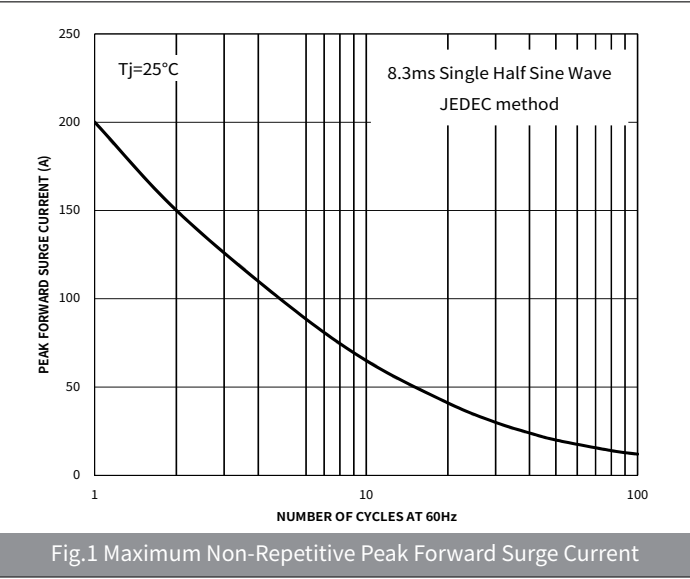
MBR2020CT THRU MBR20200CT

AXIAL SCHOTTKY BARRIER RECTIFIER

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	MBR 2020CT	MBR 2045CT	MBR 2060CT	MBR 2080CT	MBR 20100CT	MBR 20150CT	MBR 20200CT
Maximum instantaneous forward voltage	I _F =10A	V _F	V	0.60		0.75	0.85		0.92	
Maximum DC reverse current at rated DC blocking voltage	V _R =V _{DC} , T _A =25°C	I _{R1}	mA	0.1			0.02			
	V _R =V _{DC} , T _A =125°C	I _{R2}		5.0			2.0			

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



MBR2020CT THRU MBR20200CT

AXIAL SCHOTTKY BARRIER RECTIFIER

● Ordering Information

PACKAGE	UNIT WEIGHT(g)	TUBE(pcs)	BOX(pcs)
TO-220CB	2.04	50	1000

● Package Outline Dimensions (TO-220CB)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.60	4.80	0.181	0.189
A1	1.25	1.35	0.049	0.053
A2	2.30	2.50	0.091	0.098
b	0.75	0.85	0.030	0.033
b1	1.25	1.42	0.049	0.056
c	0.45	0.55	0.018	0.022
D	14.60	15.20	0.575	0.598
D1	8.56	8.76	0.337	0.345
E	10.05	10.25	0.396	0.404
E1	7.78	7.98	0.306	0.314
E2	9.58	9.78	0.377	0.385
E3	7.05	7.25	0.278	0.285
e	2.45	2.65	0.096	0.104
e1	5.08REF		0.200REF	
H	6.14	6.34	0.242	0.250
H1	2.20	2.40	0.087	0.094
H2	9.04	1.14	0.356	0.045
L	13.50	14.10	0.531	0.555
L1	2.45	2.65	0.096	0.104
ΦP	3.63	3.75	0.143	0.148
Q	2.70	2.90	0.106	0.114
θ1	2°	7°	2°	7°