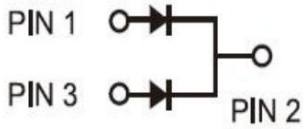
四川旭茂微科技有限公司
Sichuan Xu Mao Micro Technology Co.,Ltd

MBR2045CT

Schottky Diodes
Reverse Voltage- 45v
Forward current--20A

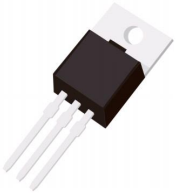
Features

Schottky chip
Ldeal for surface mounted applications
Low forward voltage drop,Low power loss, high efficiency
Plastic Case Material has UL Flammability



Mechanical Data

Package: TO-220AB
Terminals:Tin Plated leads, solderable per
Mil-STD-750 Method 2026
Polarity: As marked
Molding compound meets UL 94 V-0 flammability rating,
ROHS-compliant



TO-220AB

Maximum Ratings (Ta=25℃ Unless otherwise

Type Number	SYMBOL	MBR2045 CT	Umit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	31.5	V
Maximum DC Blocking Voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current at TL = 100℃	$IO_{(AV)}$	20.0	A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated	IFSM	130.0	A
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃		260.0	A
Current squared time @1ms≤t8.3≤ms Tj=25℃， Rating of per diode	I^2t	93.4	A^2S
Maximum Forward Voltage at 10.0A DC	V_{FM}	0.6	V
Maximum Reverse Current TA = 25℃	IR	0.2	mA
at Rated DC Blocking Voltage TA = 100℃		50	mA
Typical Junction Capacitance	CJ	660	pF
Typical Thermal Resistance Between junction and ambien	R_{QJa}	75.0	℃/W
Between Junction and Case	R_{QJC}	2.0	
Operating Junction Temperature Range	T_J	—55to+150	℃
Storage Temperature Range	T_{STG}	—55to+150	℃

FIG.1MAXIMUM AVERAGE FORWARD CURRENT DERATING

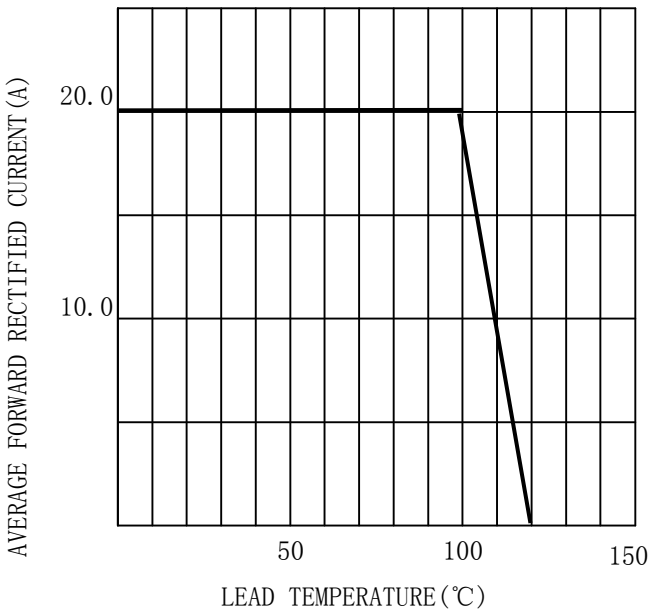


FIG.2TYPICAL FORWARD CHARACTERISTICS

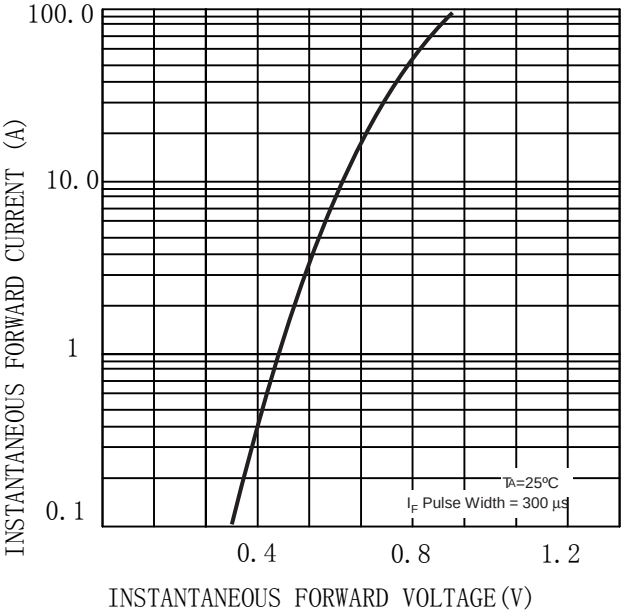


FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT

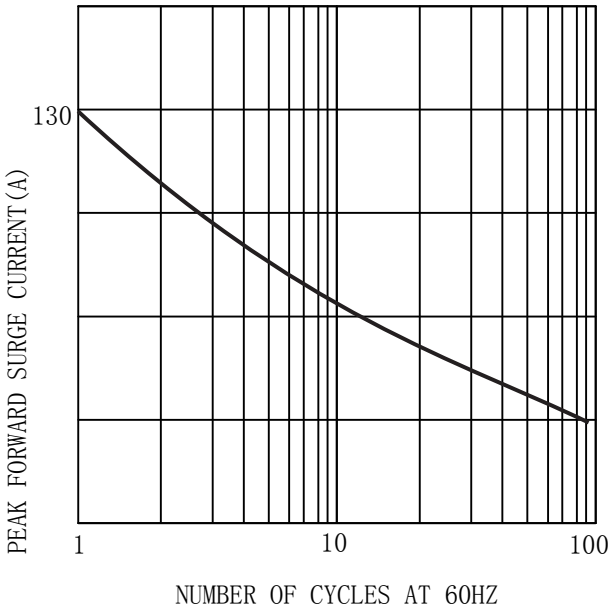
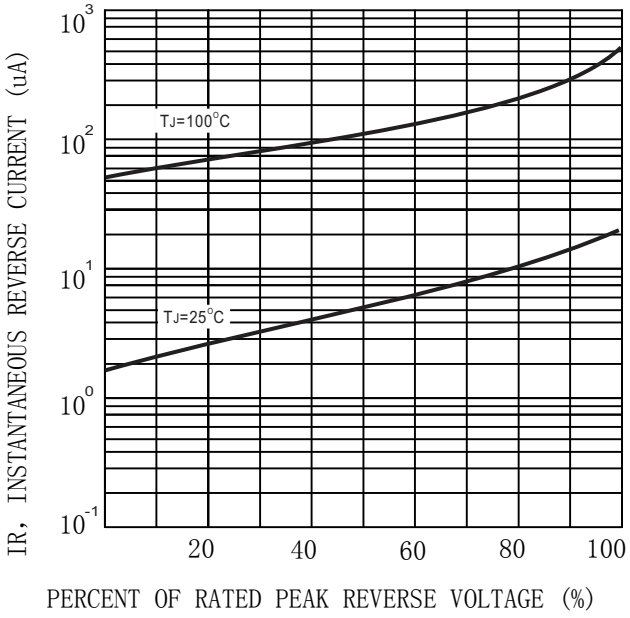
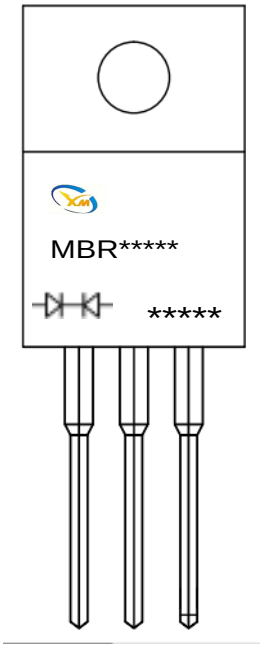


FIG. 4 TYPICAL REVERSE CHARACTERISTICS(per element)



MARKING INFORMATION

TO-220AB/CT



= Polar line

= Logo

***** = Date Code Marking

MBRL****** = Marking Code

Date Code Marking

A 001

A: Year/month code

001: Order serial number

Example: January 2023 order number is 001, period A001

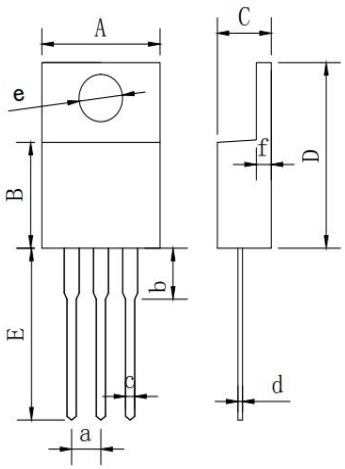
January 2025 Order number is 001, period Ȧ001

Period code year distinction					
2023/2024	2025/2026	2027/2028	2029/2030	2031/2032	remark
no	first	second	tertius	fourth	Dot above corresponding character

eriod code month code mapping table												
month	1	2	3	4	5	6	7	8	9	10	11	12
Single year (Example 2023)	A	B	C	D	E	F	G	H	I	J	K	L
Biennial (example 2024)	M	N	O	P	Q	R	S	T	U	V	W	X

Package Outline Dimensions millimeters

TO-220AB/CT



DIM	INCHES		MM		NOTE
	min	max	min	max	
A	—	0.41	—	10.30	
B	0.33	0.34	8.30	8.70	
C	0.18	0.19	4.50	4.90	
D	0.57	0.60	14.60	15.20	
E	0.53	0.56	13.50	14.10	
a	0.10	0.10	2.45	2.65	
b	—	0.16	—	4.10	
c	0.03	0.04	0.72	0.92	
d	0.01	0.02	0.30	0.50	
e	—	0.15	—	3.80	Ø
f	0.05	0.06	1.20	1.40	

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