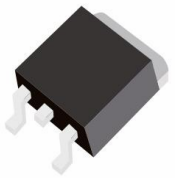
四川旭茂微科技有限公司
Sichuan Xu Mao Micro Technology Co.,Ltd

MBR40L45CT

Schottky Diodes
Reverse Voltage-45v
Forward current-40A



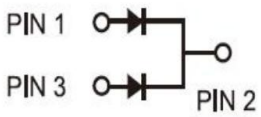
TO-263

Features

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

Mechanical Data

Package: TO-263
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



Maximum Ratings (Ta=25℃ Unless otherwise specified)

Type Number	SYMBOL	MBR40L45CT	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	$IO_{(AV)}$	40.0	A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated	IFSM	250.0	A
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃		500.0	A
Current squared time @1ms≤t8.3≤ms Tj=25℃， Rating of per diode	I^2t	259.3	A^2S
Maximum Forward Voltage at 20.0A DC	V_{FM}	0.55	V
Maximum Reverse Current TA = 25℃	IR	0.2	mA
at Rated DC Blocking Voltage TA = 100℃		50	mA
Typical Thermal Resistance Between junction to board	R_{QJB}	50.0	℃/W
	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

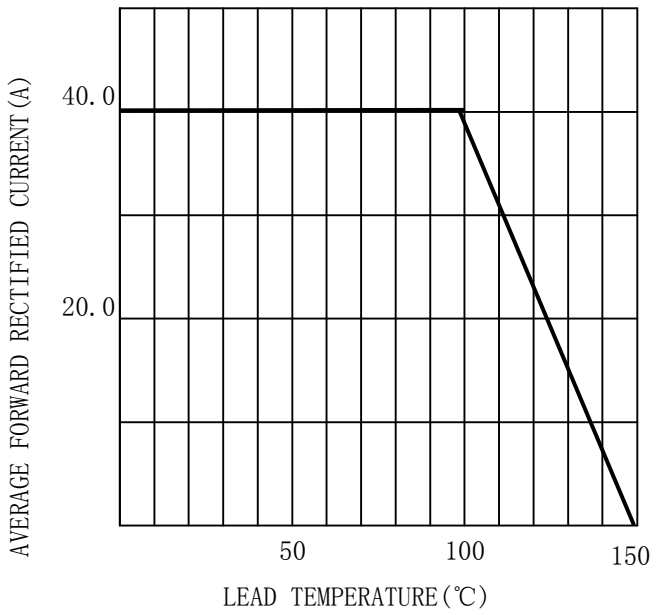


FIG.2TYPICAL FORWARD CHARACTERISTICS

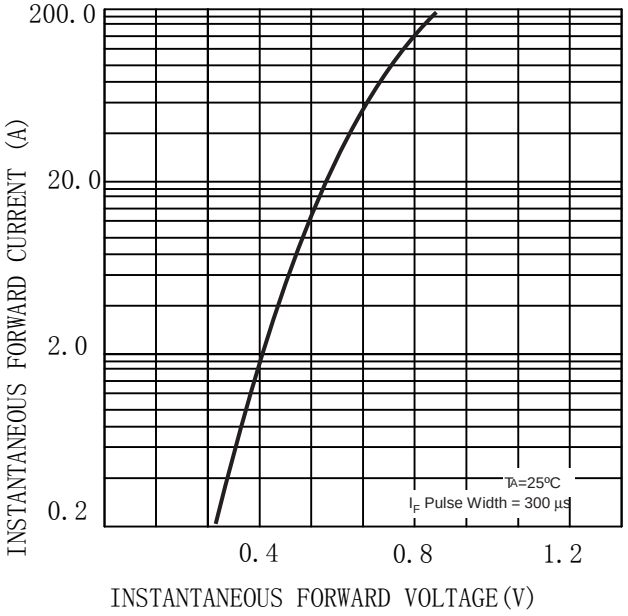


FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT

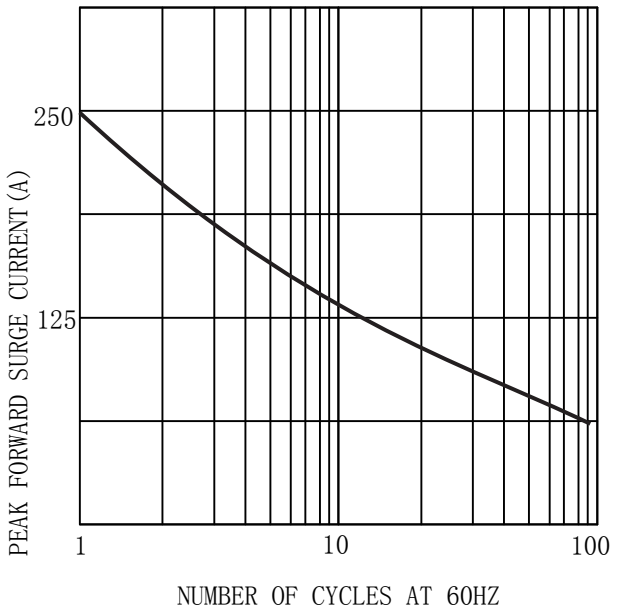
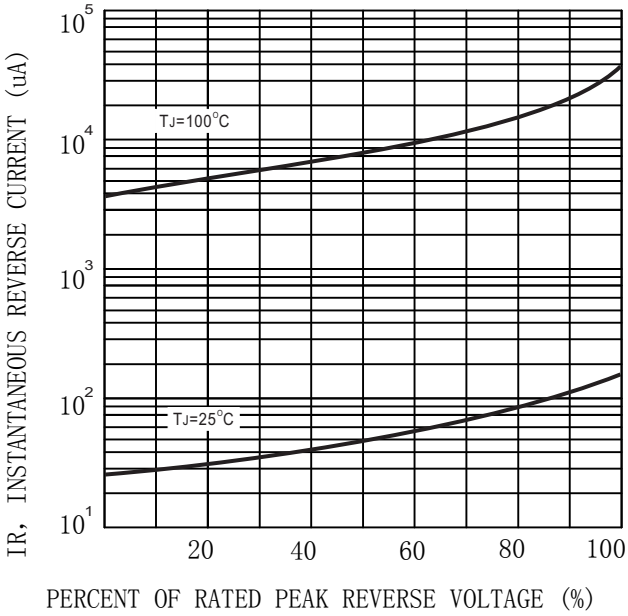
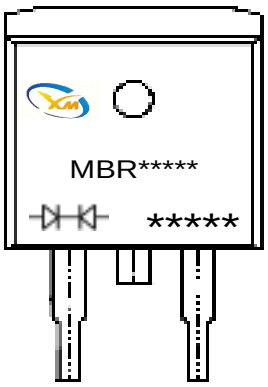


FIG. 4 TYPICAL REVERSE CHARACTERISTICS(per element)



MARKING INFORMATION

TO-263/CT



= Polar line

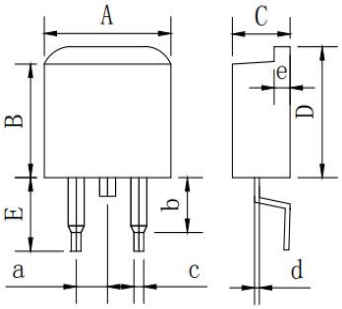
= Logo

***** = Date Code Marking

MBR***** = Marking Code

Package Outline Dimensions millimeters

TO-263/CS



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	0.38	0.39	9.60	10.00	
E	0.21	0.22	5.30	5.70	
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	0.05	0.06	1.20	1.40	

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