

Dual Common Cathode Schottky

Reverse Voltage: 45V to 200V
Forward Current: 40 Amp

Features

- Low power loss, high efficiency
- Guardring for overvoltage protection
- High forward surge capability
- Halogen-free according to IEC 61249-2-21 definition
- Compliant to RoHS Directive 2011/65/EU

Mechanical Data

• Package: TO-220AB

Molding compound meets UL 94 V-0 flammability rating

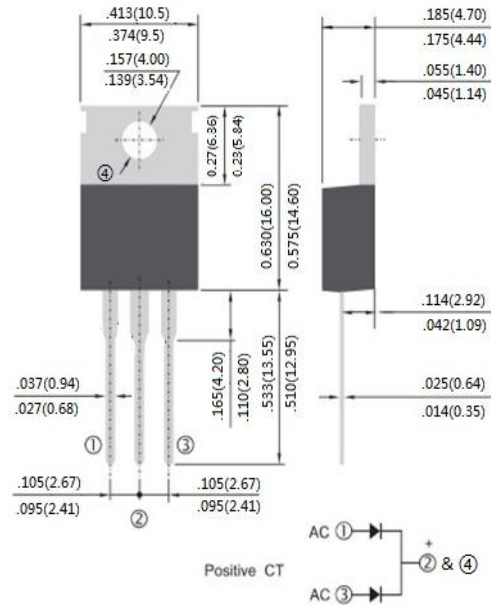
- #### • Terminals: Matte tin plated leads,
- solderable per JESD22-B102

- #### • Polarity: As marked

Typical Applications

- Switching mode power supply (SMPS)
- Adapters
- DC to DC converters

TO-220AB



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter&Test Conditions		SYM.	MBR 4045CT	MBR 4060CT	MBR 40100CT	MBR 40150CT	MBR 40200CT	Unit
Device marking code			MBR 4045CT	MBR 4060CT	MBR 40100CT	MBR 40150CT	MBR 40200CT	
Maximum Recurrent Peak Reverse Voltage		VRRM	45	60	100	150	200	V
Maximum RMS Voltage		VRMS	31.5	47	70	105	140	V
Maximum DC Blocking Voltage		VDC	45	60	100	150	200	V
Average rectified output current @60Hz sine wave, Resistance load(FIG.1)	Per Diode	I _O (AV)	20.0					A
	Per Device		40.0					
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load		IFSM	250					A
Maximum Thermal Resistance, Junction To Ambient		R _{θJA}	60					℃/W
Operating junction range		T _j	-55 ~ +150					℃
Storage temperature range		T _{STG}	-55 ~ +150					℃

Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions		SYM.	MBR 4045CT	MBR 4060CT	MBR 40100CT	MBR 40150CT	MBR 40200CT	Unit
Maximum Instantaneous Forward Voltage per diode(Note1)	IF=20A, TJ=25℃	V _{FM}	0.70	0.75	0.88	0.95		V
	IF=20A, TJ=125℃		0.62	0.67	0.78	0.85		
Maximum DC reverse current at rated DC blocking voltage per diode	TA = 25℃	I _R	0.2		0.1			mA
	TA = 125℃		20		10			

Notes:

1. Pulse test with PW=300μs, 2% duty cycle.
2. The typical data above is for reference only.

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

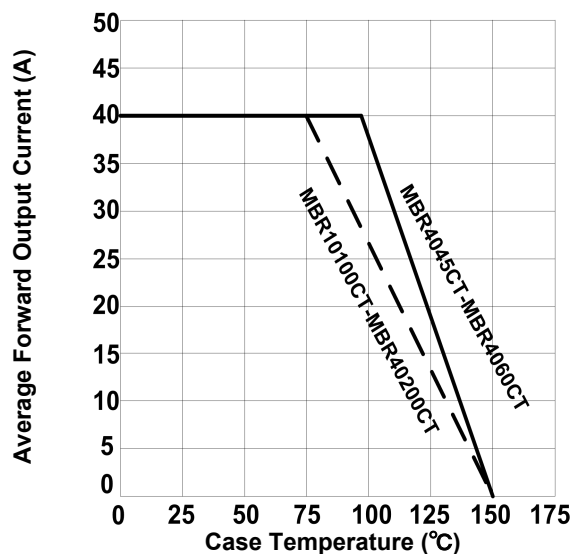


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

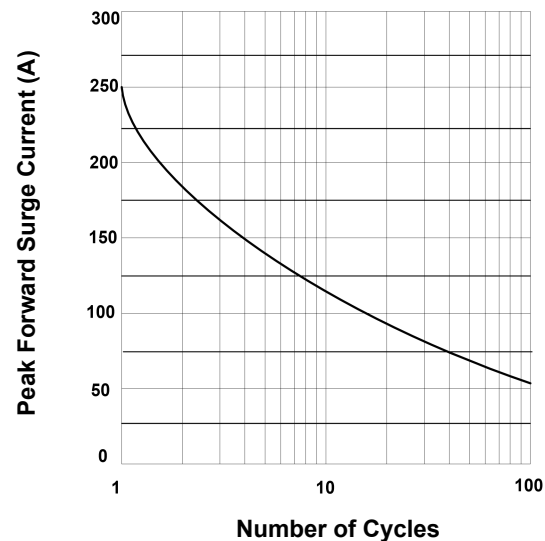


FIG. 3- TYPICAL FORWARD VOLTAGE

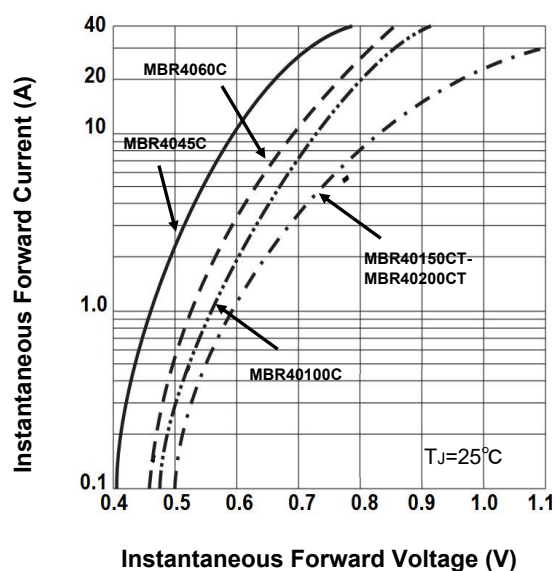
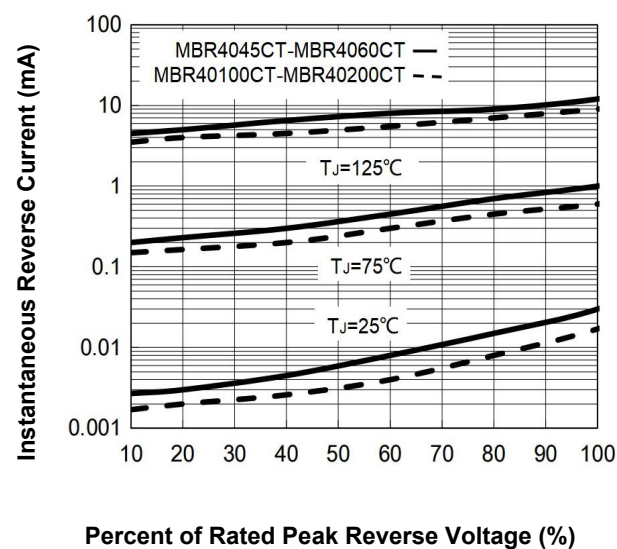


FIG. 4- TYPICAL REVERSE LEAKAGE



The curve above is for reference only.

**Legal Disclaimer Notice**

All specifications are subject to be changed without notice to improve reliability function, design, etc. JUXIN makes no warranty, or guarantee regarding the suitability of the products for any purpose. To the extent permitted by applicable law, JUXIN disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement.

Statements regarding the suitability of products for certain types of applications are based on JUXIN's ideas of typical requirements that are often placed on JUXIN products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and specifications may differ for different applications and performance may vary over time.

All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify JUXIN's terms and conditions of purchase, including but not limited to the warranty expressed therein. Except as expressly indicated in writing, JUXIN products are not designed for use in medical, life saving, or life-sustaining applications or for any other applications in which the failure of the JUXIN product could result in personal injury or death. Customers using or selling JUXIN products not expressly indicated for use in such applications do so at their own risk. Please contact authorized JUXIN personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by forbid or otherwise, to any intellectual property rights is granted by this document or by any conduct of JUXIN. Product names and markings noted herein may be trademarks of their respective owners.