

Dual Common Cathode Schottky

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

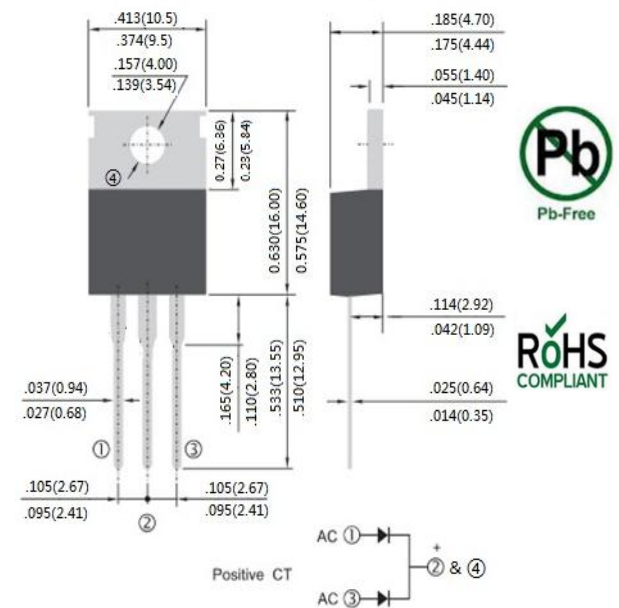
Typical Applications

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

Reverse Voltage: 45V to 200V

Forward Current: 10 Amp

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 1045CT	MBR 1060CT	MBR 10100CT	MBR 10150CT	MBR 10200CT	Unit
Device marking code			MBR 1045CT	MBR 1060CT	MBR 10100CT	MBR 10150CT	MBR 10200CT	
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)}	5.0					A
	Per Device		10.0					
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load		IFSM	120					A
Maximum Thermal Resistance, Junction To Ambient		R _{θJA}	60					℃/W
Operating junction range		T _J	-55 ~ +150					℃
Storage temperature range		T _{STG}	-55 ~ +175					℃

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

Parameter&Test Conditions		SYM.	MBR 1045CT	MBR 1060CT	MBR 10100CT	MBR 10150CT	MBR 10200CT	Unit
Maximum Instantaneous Forward Voltage per diode(Note1)	IF=5A, TJ=25℃	V _{FM}	0.70	0.80	0.85	0.95		V
	IF=5A, TJ=125℃		0.57	0.65	0.75	0.85		
	IF=10A, TJ=25℃		0.80	0.90	0.95	0.98		
	IF=10A, TJ=125℃		0.70	0.75	0.85	0.88		
Maximum DC reverse current at rated DC blocking voltage per diode	TA = 25℃	I _R	0.1					mA
	TA = 125℃		20					

Notes:

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

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

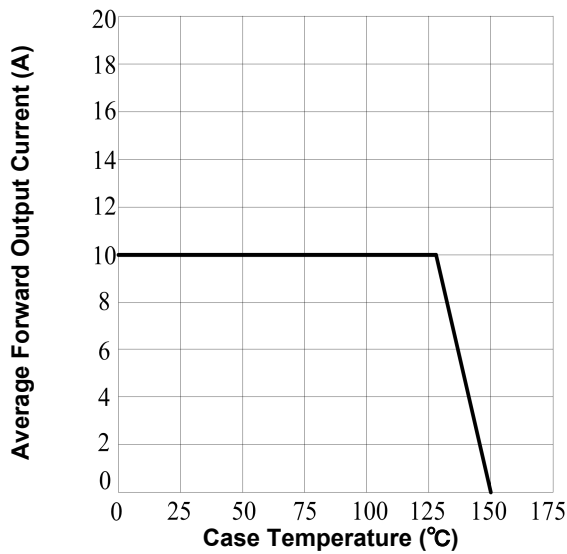


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

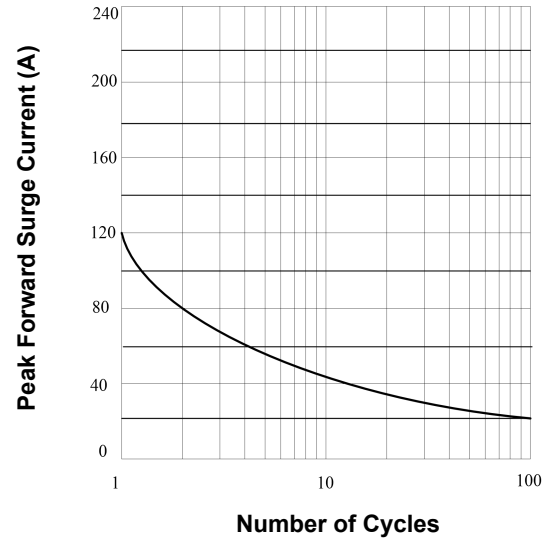


FIG. 3- TYPICAL FORWARD VOLTAGE

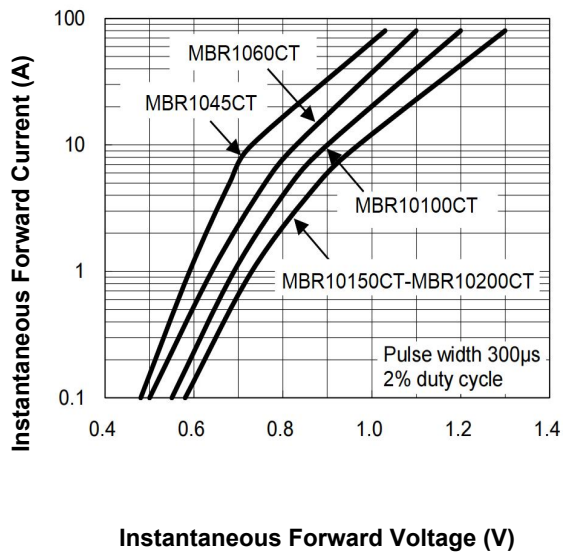
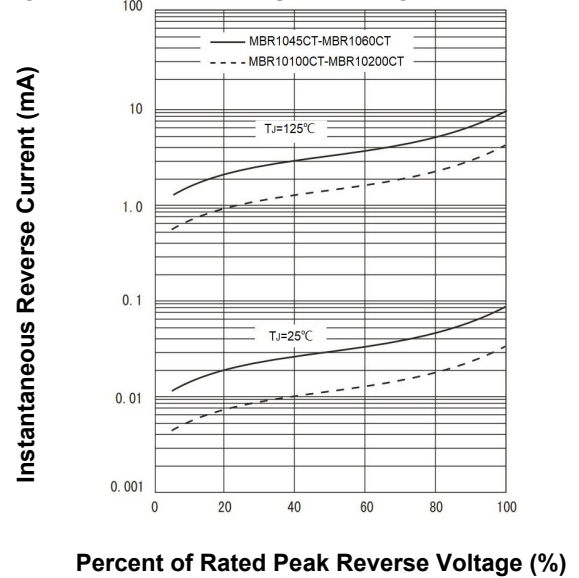


FIG. 4- TYPICAL REVERSE LEAKAGE



The curve above is for reference only.

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