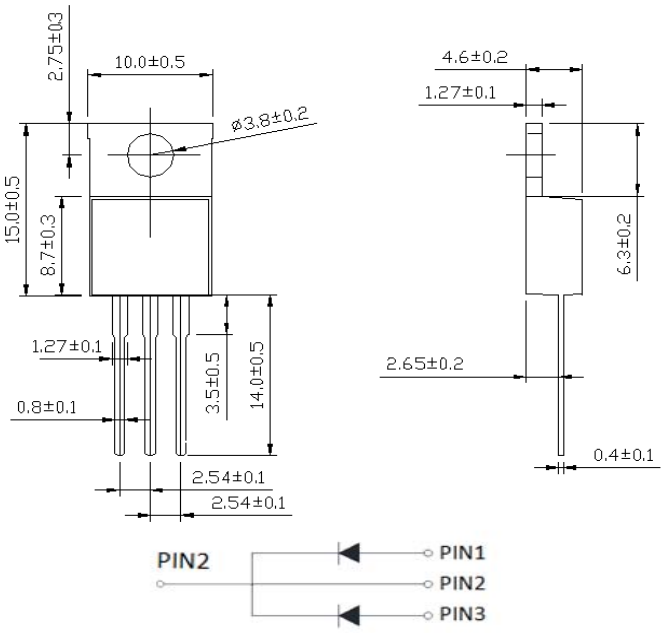
MBR3045CT thru MBR30100CT

30.0A Schottky Barrier Rectifiers

Rectifier Reverse Voltage 45 to 100V

TO-220AB



Dimensions in millimeters (1mm =0.0394")

Features

- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 260 °C max. 8 s, per JESD 22-B106

Mechanical Data

- **Package**: TO-220AB
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity**: As marked

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR3045CT	MBR3060CT	MBR30100CT
Device marking code			MBR3045CT	MBR3060CT	MBR30100CT
Repetitive Peak Reverse Voltage	V_{RRM}	V	45	60	100
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25℃	I_O	A	30		
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25℃	I_{FSM}	A	180		
Current Squared Time @1ms≤t<8.3ms Tj=25℃,	I^2t	A^2s	134		
Storage Temperature	Tstg	℃	-55 ~ +150		
Junction Temperature	Tj	℃	-55 ~ +150		

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	TEST CONDITIONS	MBR3045CT	MBR3060CT	MBR30100CT
Maximum instantaneous forward voltage drop per diode		V_{FM}	V	I_{FM}=15.0A	0.65	0.78	0.87
Maximum DC reverse current at rated DC blocking voltage per diode		I_{RRM1}	mA	$V_{RM}=V_{RRM}$ Ta=25℃	0.3	0.2	0.15
		I_{RRM2}		$V_{RM}=V_{RRM}$ Ta=125℃	20		
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	℃/W		2.0		

Rating and Characteristic Curves (T_A=25°C Unless otherwise noted)

MBR3045CT thru MBR30100CT

FIG1:Io -Tc Curve

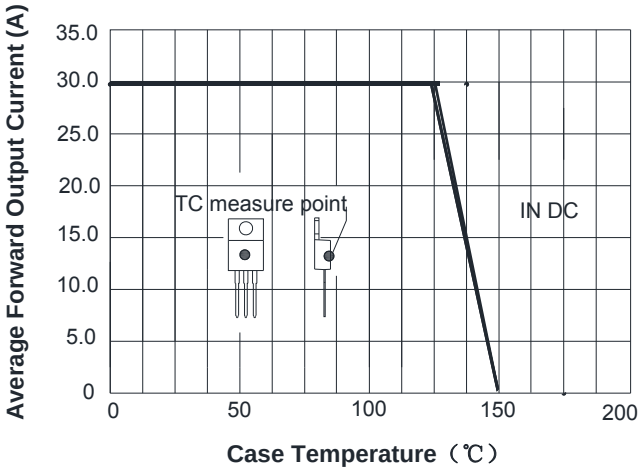


FIG2:Surge Forward Current Capability

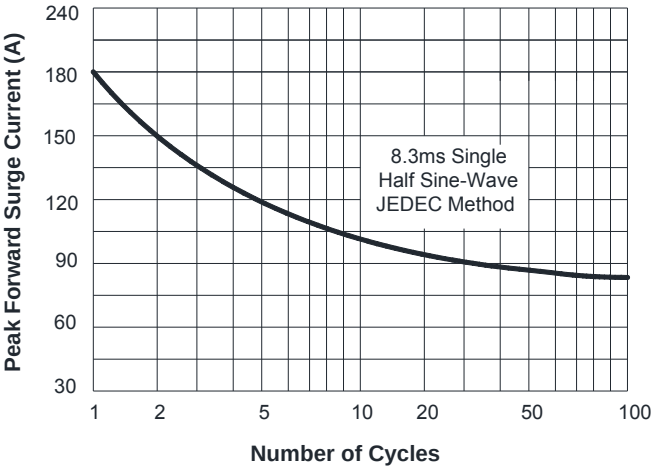


FIG3: Forward Voltage

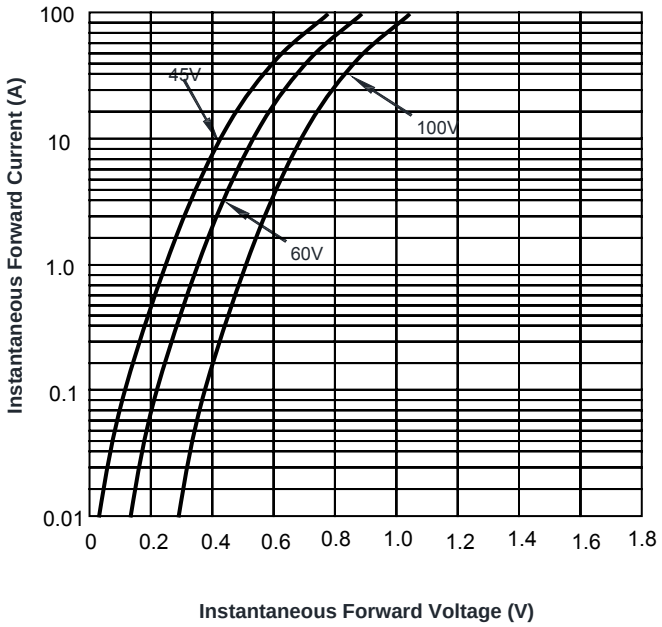


FIG.4: Instantaneous Reverse Characteristics