

SCHOTTKY BARRIER RECTIFIER

Features

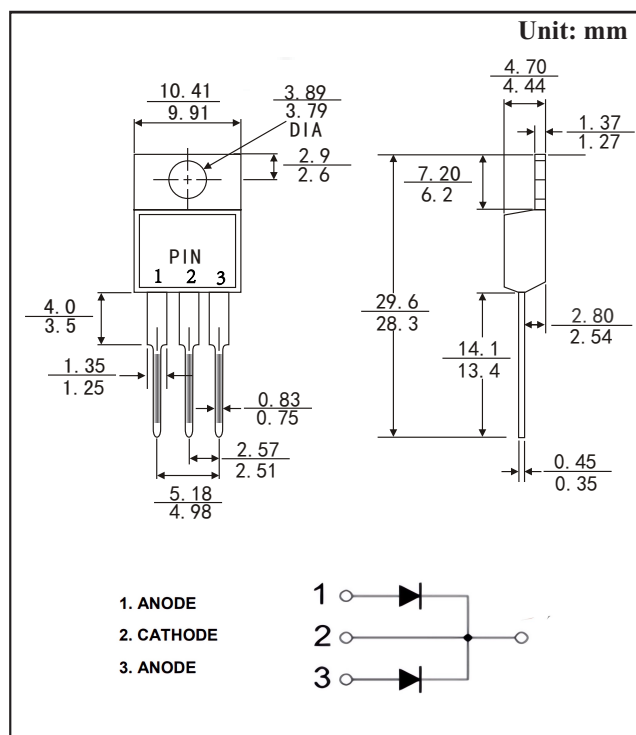
- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 260°C max. 7 s, per JESD 22-B106

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

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 AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

PARAMETER	SYMBOL	UNIT	MBR1080CT	MBR10100CT	MBR10120CT	MBR10150CT	MBR10200CT
Device marking code			MBR1080CT	MBR10100CT	MBR10120CT	MBR10150CT	MBR10200CT
Repetitive Peak Reverse Voltage	VRRM	V	80	100	120	150	200
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25°C	IO	A	10				
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25°C	IFSM	A	100				
Current Squared Time @1ms≤t≤8.3ms Tj=25°C	I²t	A²s	41				
Storage Temperature	Tstg	°C	-55 ~ +150				
Junction Temperature	Tj	°C	-55 ~ +150				

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR1080CT	MBR10100CT	MBR10120CT	MBR10150CT	MBR10200CT
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =5.0A	0.85		0.9		0.95
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	mA	V _{RM} =V _{RRM} T _a =25°C	0.1				
	I _{RRM2}		V _{RM} =V _{RRM} T _a =100°C	20				

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MBR1080CT	MBR10100CT	MBR10120CT	MBR10150CT	MBR10200CT
Thermal Resistance	Between junction and case	R _{θJ-c}	°C/W	2.0				

RATINGS AND CHARACTERISTIC CURVES

FIG1: I_o -T_c Curve

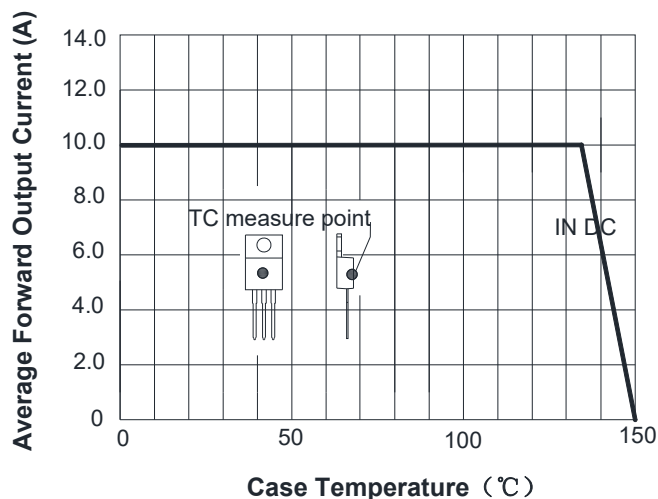


FIG2: Surge Forward Current Capability

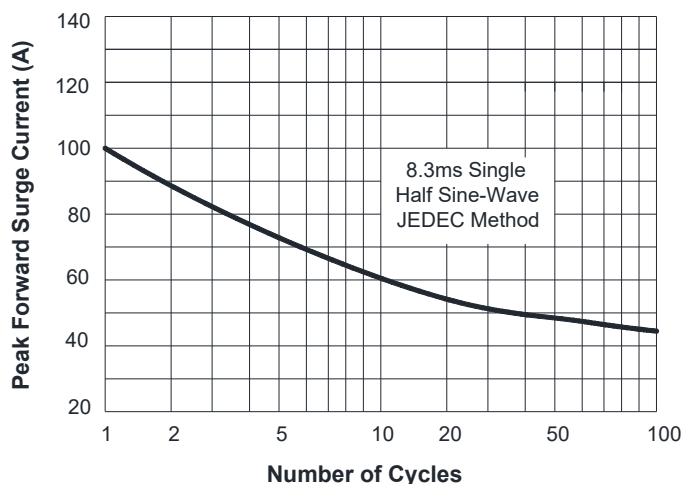


FIG3: Forward Voltage

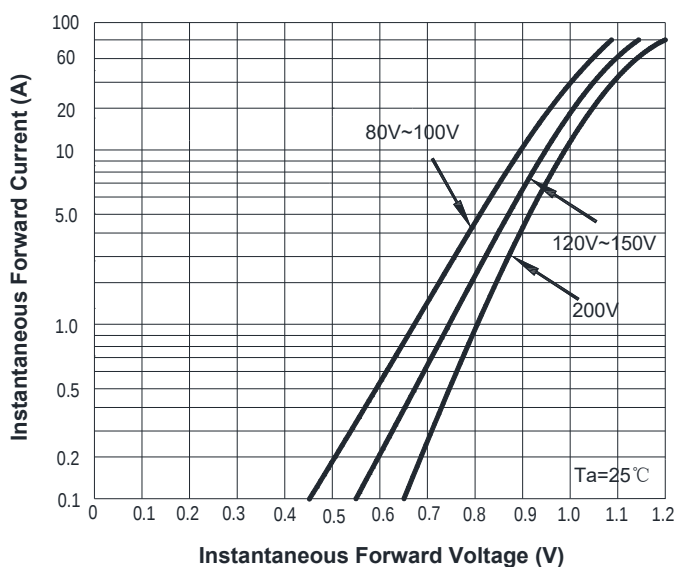


FIG4: Typical Reverse Characteristics

