

Schottky Diodes



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 275 °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 (T_j=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MBR40100CT
Device marking code			MBR40100CT
Repetitive Peak Reverse Voltage	V _{RRM}	V	100
Average Rectified Output Current @60Hz sine wave, R-load, T _c =95	I _O	A	40
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _j =25	I _{FSM}	A	300
Current Squared Time @1ms≤t≤8.3ms T _j =25	I ² t	A ² s	373
Storage Temperature	T _{stg}		-55 ~ +175
Junction Temperature	T _j		-55 ~ +175

■Electrical Characteristics T_j=25 Unless otherwise specified

	1	V	I _{FM} =20.0A	0.85
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1} ²	mA	V _{RM} =V _{RRM} T _j =25	0.1
	I _{RRM2} ²		V _{RM} =V _{RRM} T _j =125	20

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

Note2:Pulse test:pulse width 40mS



MBR40100CT

■ Thermal Characteristics $T_j=25$ Unless otherwise specified

PARAMETER		SYMBOL	UNIT	MBR40100CT
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	/W	2.0

■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR40100CT	Approximate 1.9	50	1000	5000	Tube

■ Characteristics (Typical)

FIG1: I_o - T_c Curve

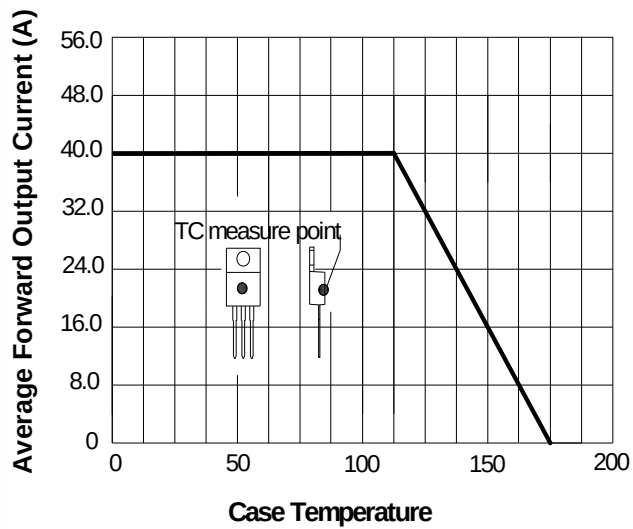
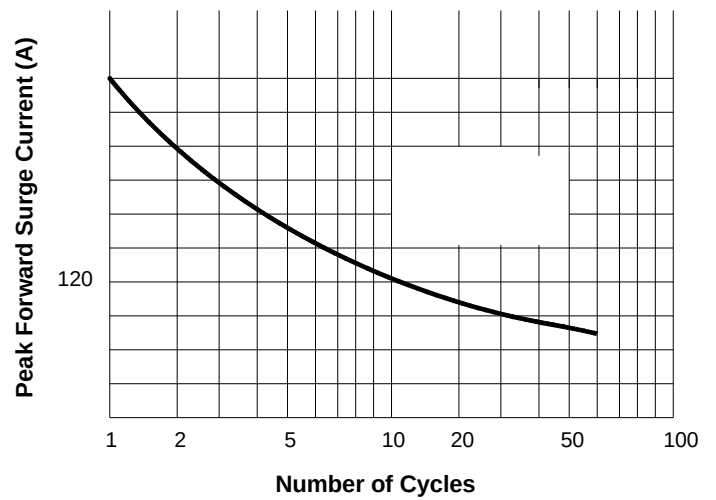
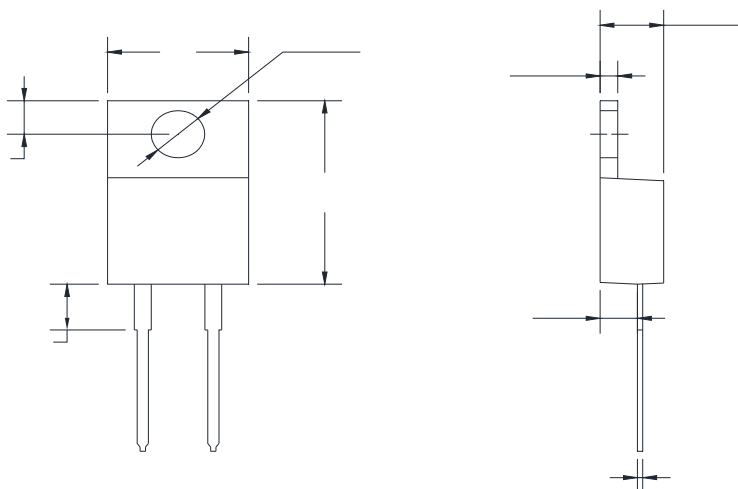


FIG2: Surge Forward Current Capability





■Outline Dimensions





MBR40100CT

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