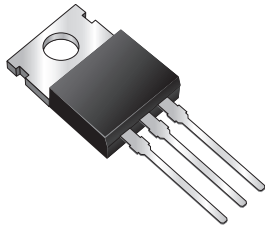


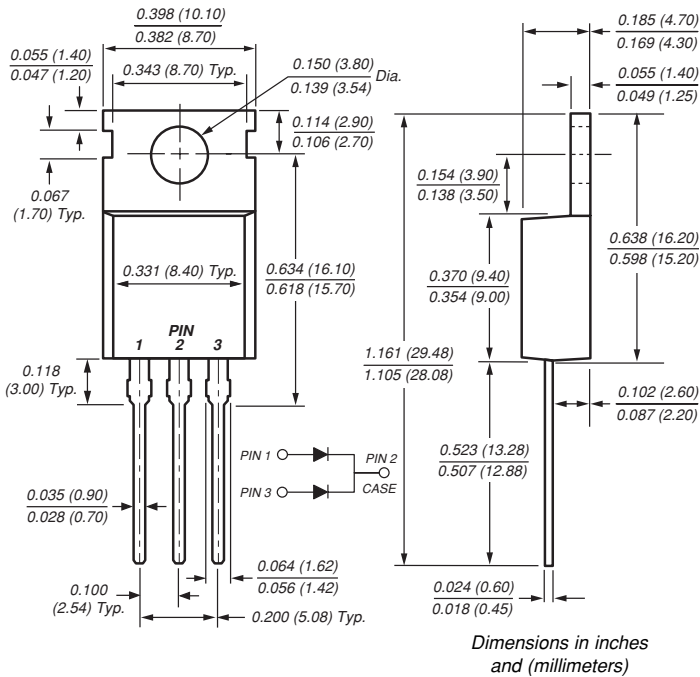


Dual High-Voltage Schottky Rectifiers

Reverse Voltage 100V
Forward Current 60A
Max. Junction Temperature 175°C



TO-220AB (MBR60100CT)



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Metal silicon junction, majority carrier conduction
- Low leakage current, Low power loss, High efficiency
- Guardring for overvoltage protection
- For use in high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data

Case: JEDEC TO-220AB
molded plastic body
Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
High temperature soldering guaranteed:
250°C/10 seconds, 0.25" (6.35mm) from case (TO-220AB) at terminals
Polarity: As marked **Mounting Position:** Any
Mounting Torque: 10 in-lbs maximum
Weight: 0.08 oz., 2.24 g

Maximum Ratings and Thermal Characteristics (T_C = 25°C unless otherwise noted)

Parameter	Symbol	MBR60100CT	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	100	V
Working peak reverse voltage	V _{RWM}	100	V
Maximum DC blocking voltage	V _{DC}	100	V
Maximum average forward rectified current	I _{F(AV)}	60 30	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per leg	I _{FSM}	350	A
Peak repetitive reverse current per leg at t _p = 2μs, 1KHz	I _{RRM}	1.0	A
Peak non-repetitive reverse surge energy per leg (8/20μs waveform)	E _{RSM}	25	mJ
Non-repetitive avalanche energy per leg at 25°C, I _{AS} = 1.0A, L = 40mH	E _{AS}	20	mJ
Voltage rate of change (rated V _R)	dv/dt	10,000	V/μs
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175	°C
Typical thermal resistance per leg	R _{θJC}	0.5	°C/W

Electrical Characteristics (T_C = 25°C unless otherwise noted)

Parameter	Symbol	Typ.	Max.	Unit
Maximum instantaneous forward voltage per leg at ⁽¹⁾ :	V _F	0.78 0.64 0.92 0.78	0.82 0.69 1.0 0.83	V
Maximum reverse current per leg at working peak reverse voltage	I _R	8.0 8.5	100 20	μA mA

Notes:
(1) Pulse test: 300μs pulse width, 1% duty cycle

Fig. 1 – Forward Derating Curve

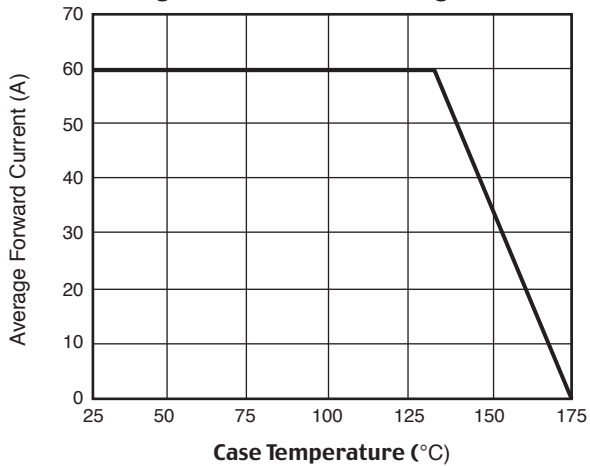


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

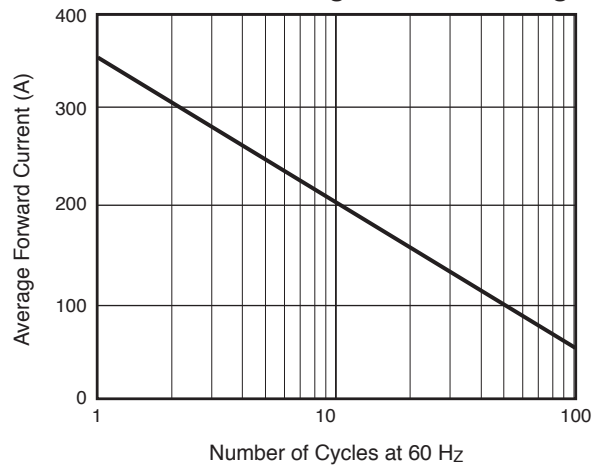


Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg

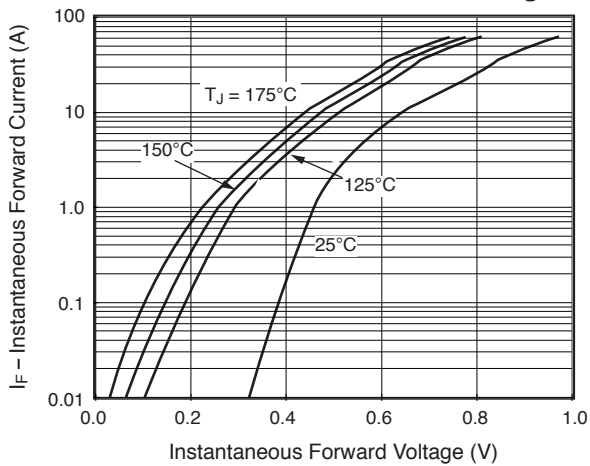


Fig. 4 – Typical Reverse Characteristics Per Leg

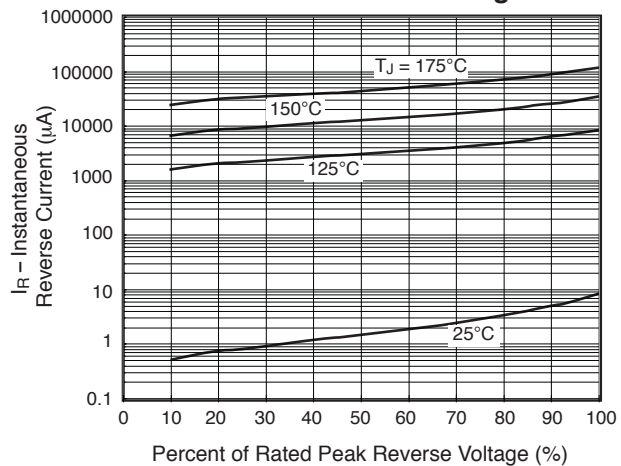


Fig. 5 – Typical Junction Capacitance Per Leg

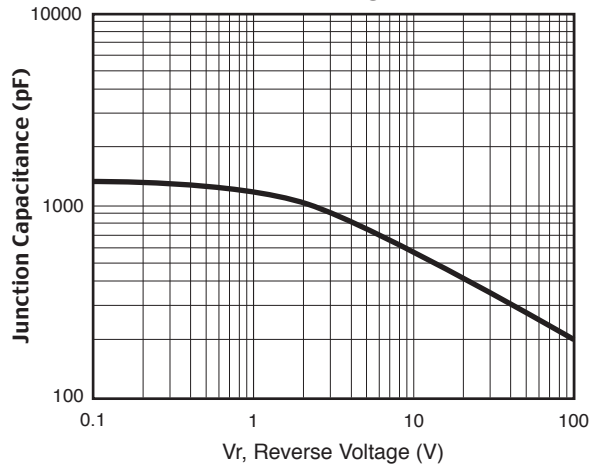


Fig. 6 – Typical Transient Thermal Impedance

