

Dual Schottky Rectifiers

Reverse Voltage 35 to 60V
Forward Current 10A

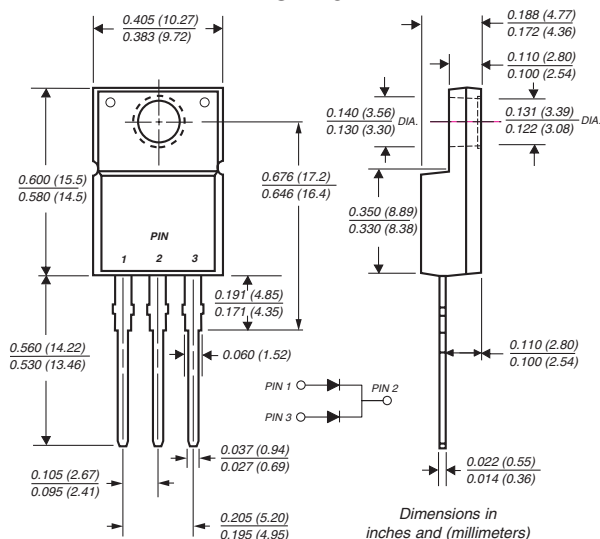
Features

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

Mechanical Data

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

ITO-220AB

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

Parameter	Symbol	MBRF 1035CT	MBRF 1040CT	MBRF 1045CT	MBRF 1050CT	MBRF 1060CT	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	35	40	45	50	60	V
Working peak reverse voltage	V _{RWM}	35	40	45	50	60	V
Maximum DC blocking voltage	V _{DC}	35	40	45	50	60	V
Maximum average forward rectified current <i>Total device</i> at T _C = 105°C <i>Per leg</i>	I _{F(AV)}	10 5					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) per leg	I _{FSM}	150					A
Peak repetitive reverse current per leg at t _p = 2μs, 1KHZ	I _{RRM}	1.0			0.5		A
Voltage rate of change (rated V _R)	dv/dt	10,000					V/μs
Typical thermal resistance per leg	R _{θJC}	5.0					°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +150					°C
RMS Isolation voltage (MBRF type only) from terminals to heatsink with t = 1 second, RH ≤ 30%	V _{ISOL}	4500 ⁽¹⁾ 3500 ⁽²⁾ 1500 ⁽³⁾					V

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

Maximum instantaneous forward voltage per leg ⁽⁴⁾ at I _F = 5.0A, T _C = 125°C at I _F = 5.0A, T _C = 25°C	V _F	0.55		0.70		V
Maximum reverse current per leg at working peak reverse voltage ⁽⁴⁾ T _J = 25°C T _J = 100°C	I _R	0.1 6.0				mA

Notes: (1) Clip mounting (on case), where lead does not overlap heatsink with 0.110" offset
(2) Clip mounting (on case), where leads do overlap heatsink
(3) Screw mounting with 4-40 screw, where washer diameter is ≤ 4.9 mm (0.19")
(4) Pulse test: 300μs pulse width, 1% duty cycle



Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

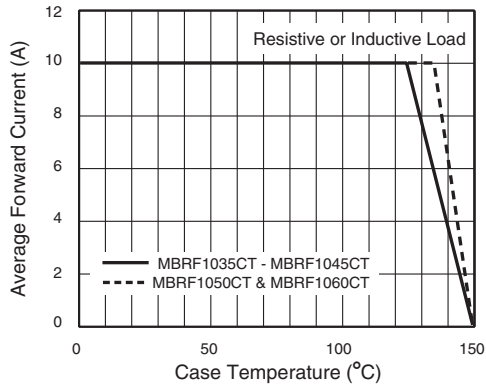


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

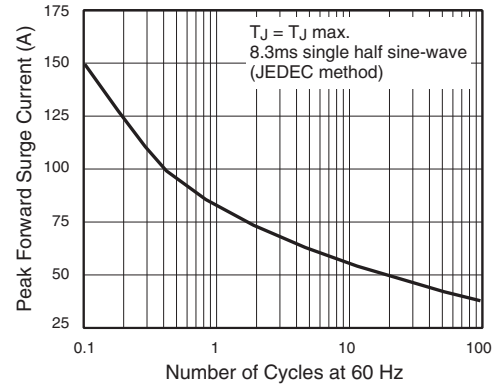


Fig. 3 - Typical Instantaneous Forward Characteristics

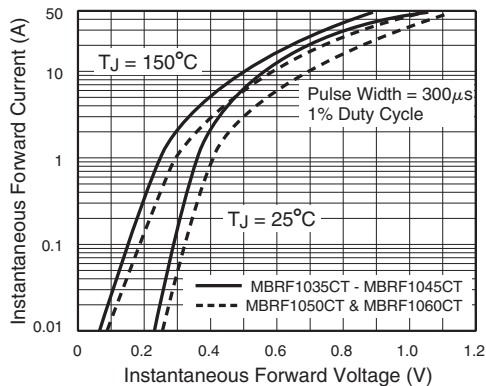


Fig. 4 - Typical Reverse Characteristics

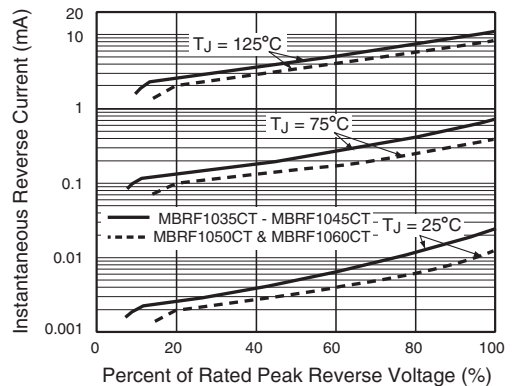


Fig. 5 - Typical Junction Capacitance

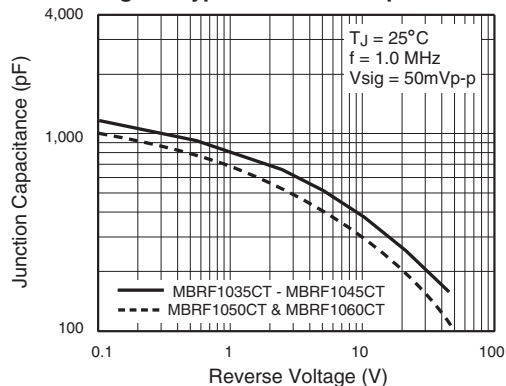


Fig. 6 - Typical Transient Thermal Impedance

