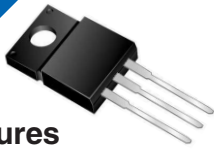




MBRF1635CT thru MBRF1660CT

Crownpo Technology



Dual Schottky Barrier Rectifiers

Reverse Voltage 35 to 60V
Forward Current 16A

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 2026

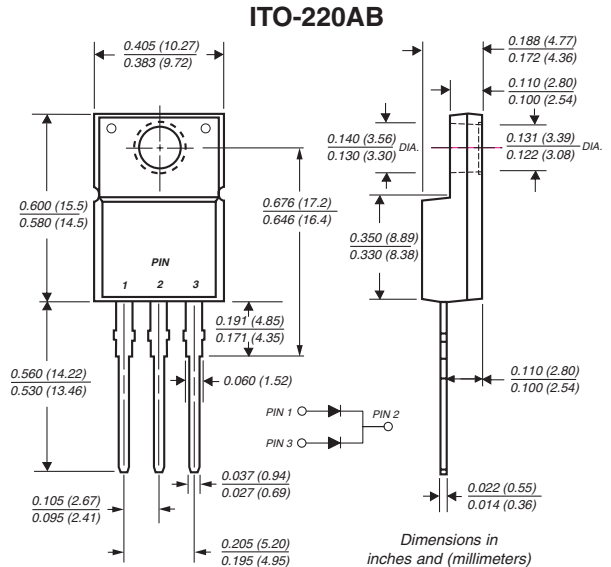
High temperature soldering guaranteed: 250°C/10 seconds, 0.25" (6.35mm) from case

Polarity: As marked

Mounting Position: Any

Mounting Torque: 10 in-lbs maximum

Weight: 0.08 oz., 2.24 g



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

Parameter	Symbol	MBRF 1635CT	MBRF 1640CT	MBRF 1645CT	MBRF 1650CT	MBRF 1660CT	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 = 95°C <i>Per leg</i>	I _{F(AV)}	16			8		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}	0.5					A
Voltage rate of change (rated V _R)	dv/dt	10,000					V/μs
Typical thermal resistance per leg	R _{θC}	4.0					°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 = 8.0A, T _C = 25°C	V _F	0.60	0.70	V
Maximum reverse current per leg at working peak reverse voltage ⁽⁴⁾ T _J = 25°C T _J = 100°C	I _R	5.0	50	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)

