

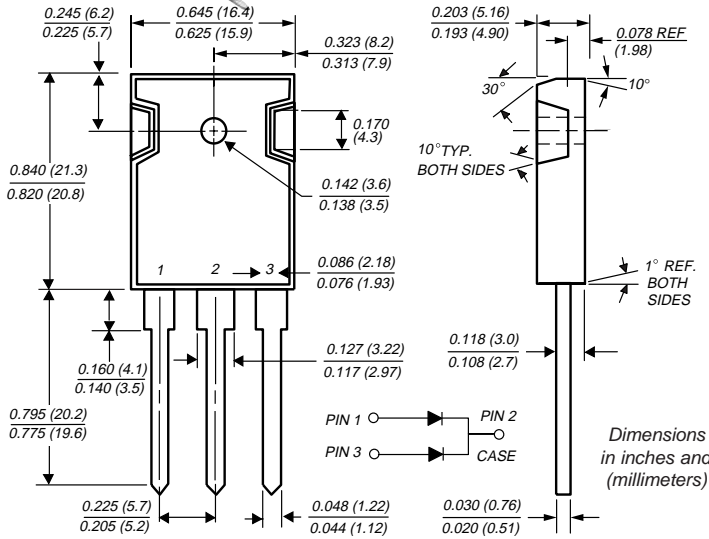


High Voltage Dual Schottky Rectifier

Rev. Voltage 90 to 100 V
Forward Current 30A



TO-247AD



Features

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- Dual rectifier construction, positive center-tap
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free-wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds, 0.17" (4.3mm) from case

Mechanical Data

Case: JEDEC TO-247AD molded plastic body
Terminals: Lead solderable per MIL-STD-750, Method 2026
Polarity: As marked **Mounting Position:** Any
Mounting Torque: 10 in-lbs max.
Weight: 0.2oz., 5.6g

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	MBR3090PT	MBR30100PT	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	90	100	V
Maximum working peak reverse voltage	V _{RWM}	90	100	V
Maximum DC blocking voltage	V _{DC}	90	100	V
Maximum average forward rectified current (SEE FIG. 1)	I _{F(AV)}	30		A
Peak repetitive forward current per leg at T _C =105°C (rated V _R , square wave, 20 KHz)	I _{FRM}	30		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	TBD		A
Peak repetitive reverse surge current (NOTE 1)	I _{RRM}	0.5		A
Thermal resistance from junction to case per leg	R _{θJC}	1.4		°C/W
Voltage rate of change at (rated V _R)	dv/dt	10,000		V/μs
Maximum operating junction temperature	T _J	150		°C
Storage temperature range	T _{STG}	-65 to +175		°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	MBR3090PT	MBR30100PT	Unit
Maximum instantaneous forward voltage per leg at: (NOTE 2) I _F = 15A, T _C = 25°C I _F = 15A, T _C = 125°C	V _F	0.85 0.75		V
Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2) T _C = 25°C T _C = 125°C	I _R	1.0 60		mA

Notes: (1) 2.0μs pulse width, f = 1.0 KHz
(2) Pulse test: 300μs pulse width, 1% duty cycle