

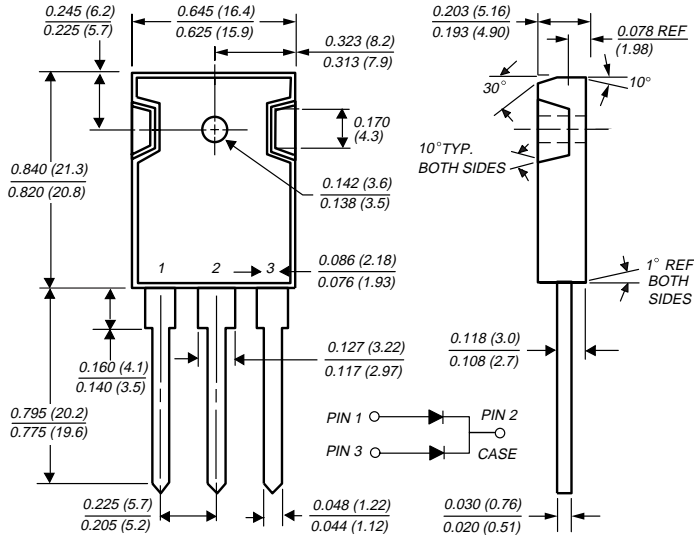
Dual Low V_F OR-ing Schottky Barrier Rectifier

Reverse Voltage 15V
Forward Current 40A

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

TO-247AD (TO-3P)



Dimensions in inches and (millimeters)

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:** 0.2 oz., 5.6 g

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	15	V
Maximum working peak reverse voltage	V _{RWM}	11	V
Maximum DC blocking voltage	V _{DC}	15	V
Maximum average forward rectified current at T _c = 140°C	I _{F(AV)}	40 20	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	340	A
Peak repetitive reverse surge current ⁽¹⁾	I _{RRM}	2.0	A
Thermal resistance from junction to case per leg	R _{θJC}	1.6	°C/W
Voltage rate of change at (rated V _R)	dv/dt	10,000	V/μs
Operating junction storage temperature range	T _J , T _{STG}	-65 to +150	°C

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

Maximum instantaneous forward voltage per leg at: ⁽²⁾	I _F = 19A, T _J = 25°C I _F = 19A, T _J = 125°C I _F = 40A, T _J = 25°C I _F = 40A, T _J = 125°C	V _F V _F	0.41 0.33 0.52 0.50	V
Maximum instantaneous reverse current at rated DC blocking voltage per leg ⁽²⁾	T _J = 25°C T _J = 100°C	I _R	6.0 500	mA

Notes: (1) 2.0μs pulse width, f = 1.0KHz
(2) 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

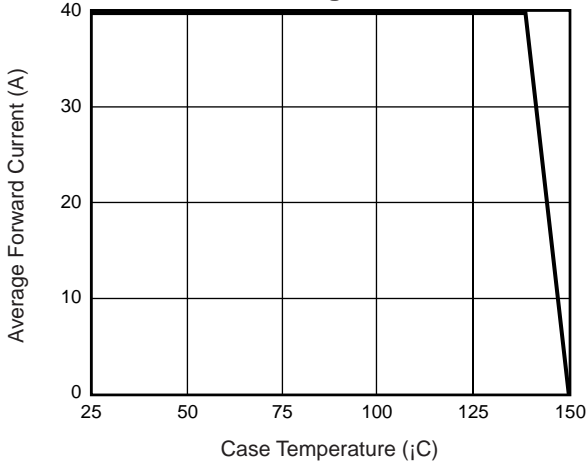


Fig. 2 – Typical Instantaneous Forward Characteristics Per Leg

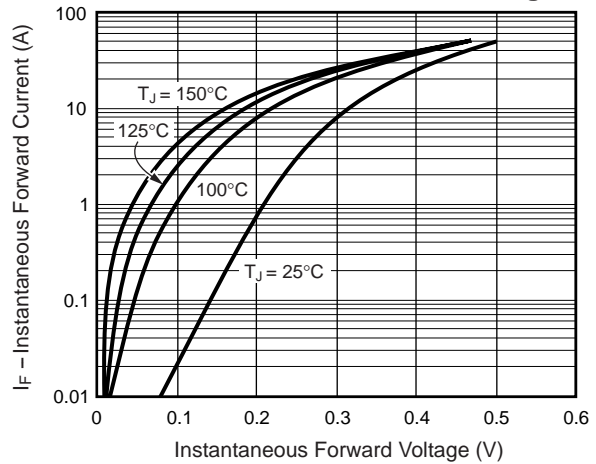


Fig. 3 – Typical Reverse Characteristics Per Leg

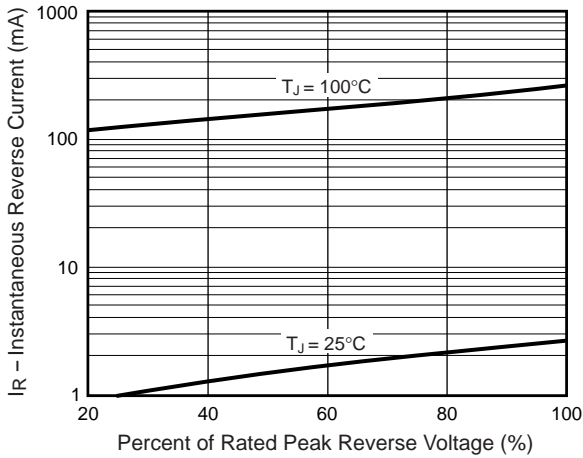


Fig. 4 – Typical Junction Capacitance Per Leg

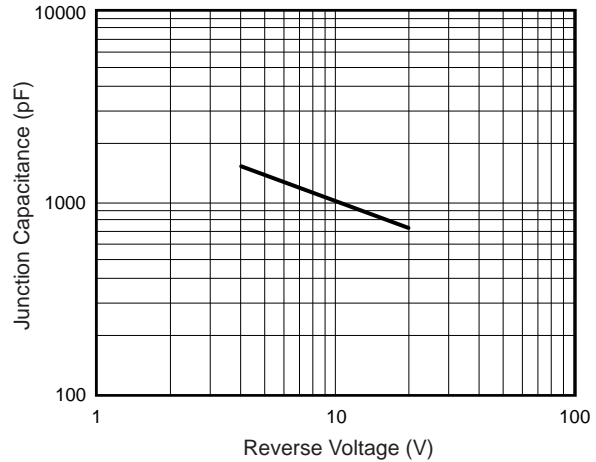


Fig. 5 – Typical Transient Thermal Impedance Per Leg

