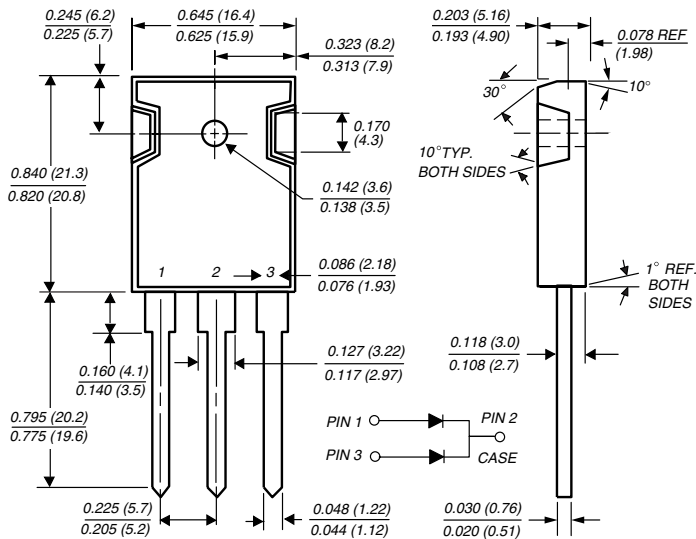


Dual Low VF OR-ing Schottky Barrier Rectifier

Reverse Voltage 15V

Forward Current 40A

TO-247AD (TO-3P)



Dimensions in inches and (millimeters)

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	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 $T_C = 140^\circ\text{C}$ Total Device Per Leg	$I_{F(AV)}$	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	$R_{\theta JC}$	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.

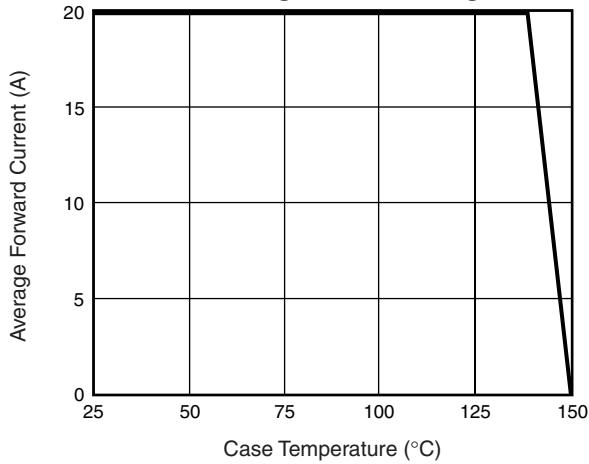
Maximum instantaneous forward voltage per leg at: ⁽²⁾	$I_F = 19\text{A}, T_J = 25^\circ\text{C}$	V_F	0.41	V
	$I_F = 19\text{A}, T_J = 125^\circ\text{C}$		0.33	
	$I_F = 40\text{A}, T_J = 25^\circ\text{C}$	V_F	0.52	V
	$I_F = 40\text{A}, T_J = 125^\circ\text{C}$		0.50	
Maximum instantaneous reverse current at rated DC blocking voltage per leg ⁽²⁾	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	I_R	6.0 500	mA

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

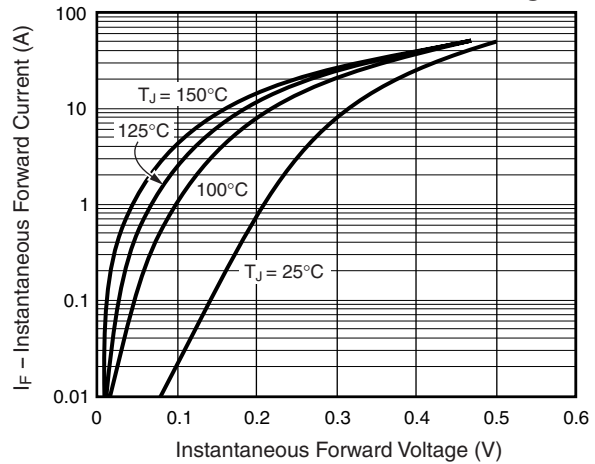
Dual Low V_F OR-ing Schottky Barrier Rectifier

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

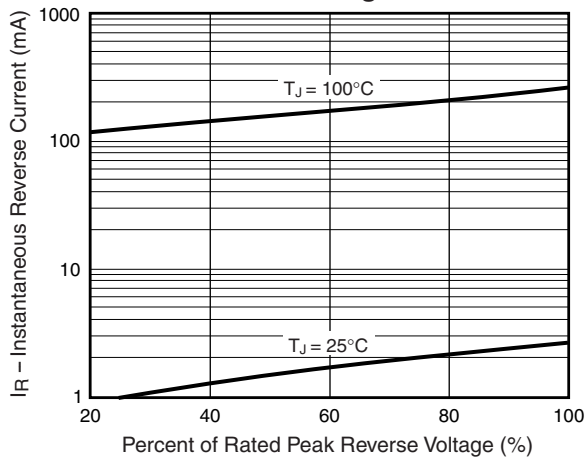
**Fig. 1 – Forward Current
Derating Curve Per Leg**



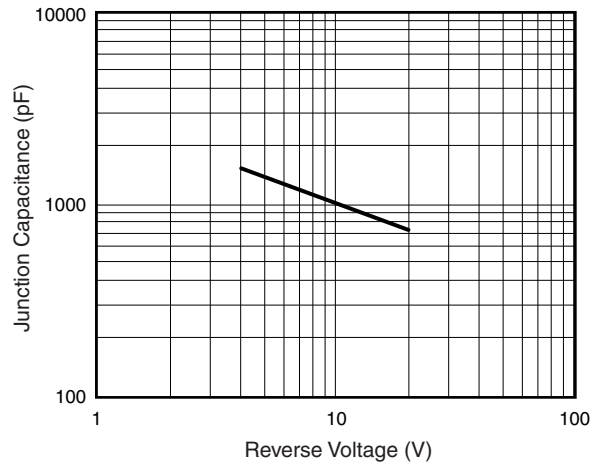
**Fig. 2 – Typical Instantaneous
Forward Characteristics Per Leg**



**Fig. 3 – Typical Reverse Characteristics
Per Leg**



**Fig. 4 – Typical Junction Capacitance
Per Leg**



**Fig. 5 – Typical Transient Thermal
Impedance Per Leg**

