



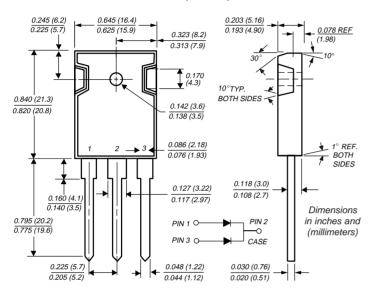
Vishay Semiconductors formerly General Semiconductor



# **Dual Schottky Rectifier**

Reverse Voltage 30 and 40V Forward Current 30A

### TO-247AD (TO-3P)



#### **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: 0.2 oz., 5.6 g

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

Parameter	Symbol	SBL3030PT	SBL3040PT	Unit
Maximum repetitive peak reverse voltage	VRRM	30	40	V
Maximum RMS voltage	V <sub>RWM</sub>	21	28	V
Maximum DC blocking voltage	V <sub>DC</sub>	30	40	V
Maximum average forward rectified current (SEE FIG. 1)	IF(AV)	30		А
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	275		А
Thermal resistance from junction to case per leg	Rejc	1.5		°C/W
Operating junction and storage temperature range	TJ. TSTG	-40 to +125		°C

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

Parameter		Symbol	SBL3030PT	SBL3040PT	Unit
Maximum instantaneous forward voltage per leg a (NOTE 1)	at: 15A	VF	0.55		V
•	= 25°C = 100°C	IR	1.0 75		mA

Notes: (1) Pulse test: 300µs pulse width, 1% duty cycle

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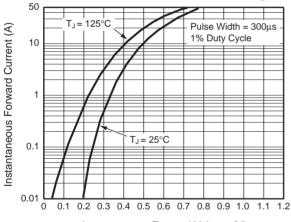
## SBL3030PT and SBL3040PT

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# Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current **Derating Curve** Resistive or Inductive Load Average Forward Current (A) 24 18 12 6 0 50 100 150 0 Case Temperature (°C)

Fig. 3 - Typical Instantaneous Forward Characteristics Per Leg



Instantaneous Forward Voltage (V)

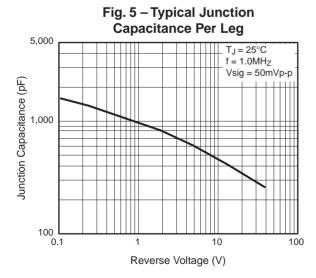


Fig. 2 - Maximum Non-Repetitive Peak **Forward Surge Current Per Leg** 

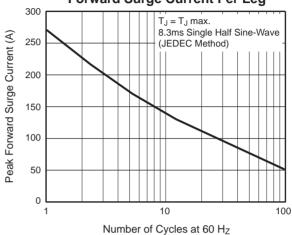
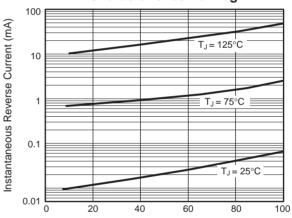
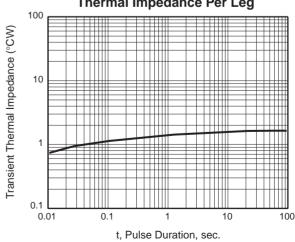


Fig. 4 - Typical Reverse **Characteristics Per Leg** 



Percent of Rated Peak Reverse Voltage (V)

Fig. 6 - Typical Transient Thermal Impedance Per Leg



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