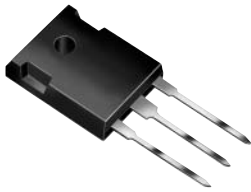




SBL2030PT and SBL2040PT

Vishay Semiconductors
formerly General Semiconductor



Dual Schottky Barrier Rectifier

Reverse Voltage 30 and 40V
Forward Current 20A

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

Mechanical Data

Case: JEDEC TO-247AD molded plastic body
Terminals: Lead solderable per MIL-STD-750, Method 2026

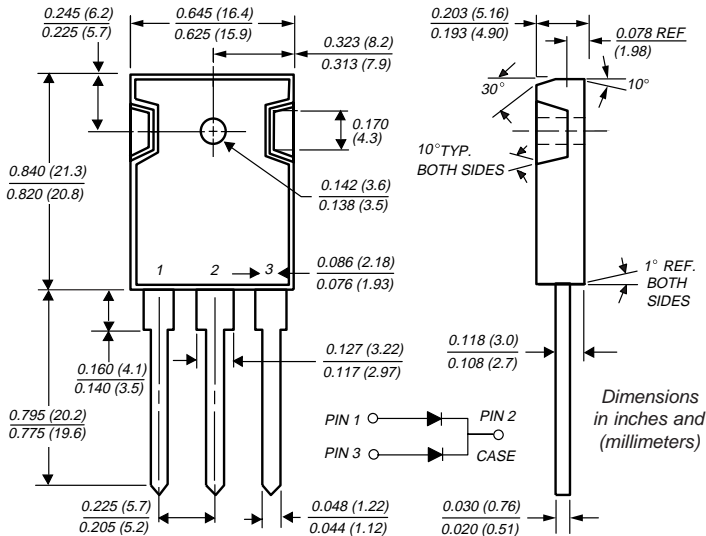
High temperature soldering guaranteed:
250°C/10 seconds, 0.17" (4.3mm) from case

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	SBL2030PT	SBL2040PT	Unit
Maximum repetitive peak reverse voltage	VRRM	30	40	V
Maximum RMS voltage	VRWM	21	28	V
Maximum DC blocking voltage	VDC	30	40	V
Maximum average forward rectified current (See Fig. 1)	IF(AV)	20		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	250		A
Thermal resistance from junction to case per leg	RθJC	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	SBL2030PT	SBL2040PT	Unit
Maximum instantaneous forward voltage per leg at 10A ⁽¹⁾	V _F	0.60		V
Maximum instantaneous reverse current at rated DC blocking voltage per leg ⁽¹⁾	I _R	1.0	50	mA
		T _C = 100°C		

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

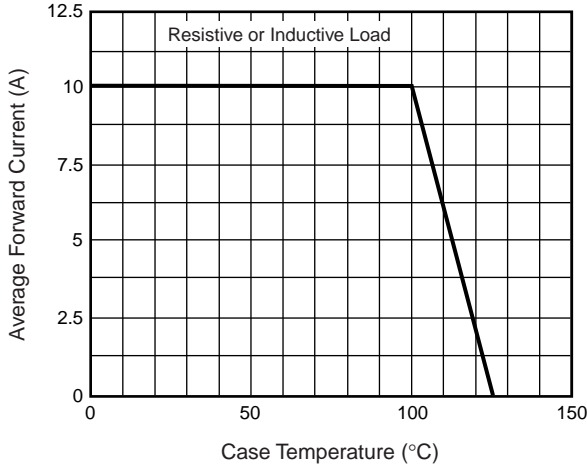
SBL2030PT and SBL2040PT



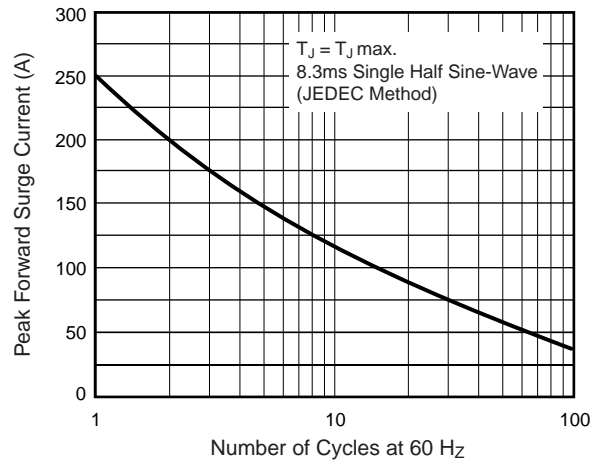
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Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

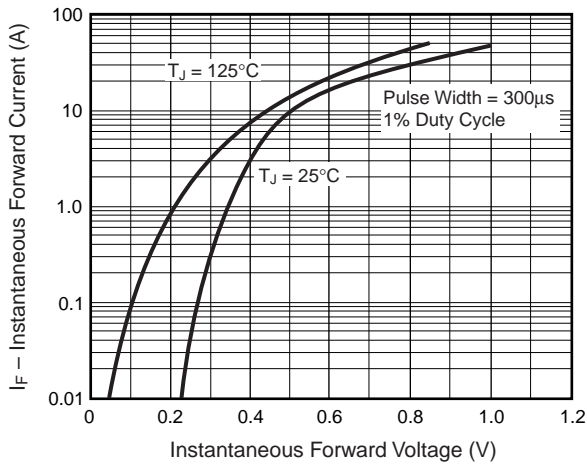
Forward Current Derating Curve



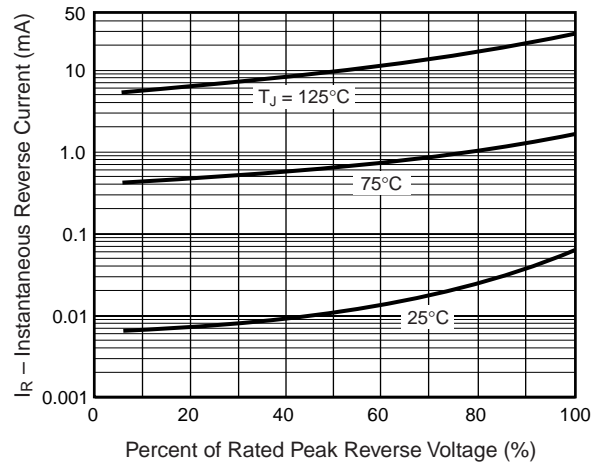
Maximum Non-Repetitive Peak Forward Surge Current Per Leg



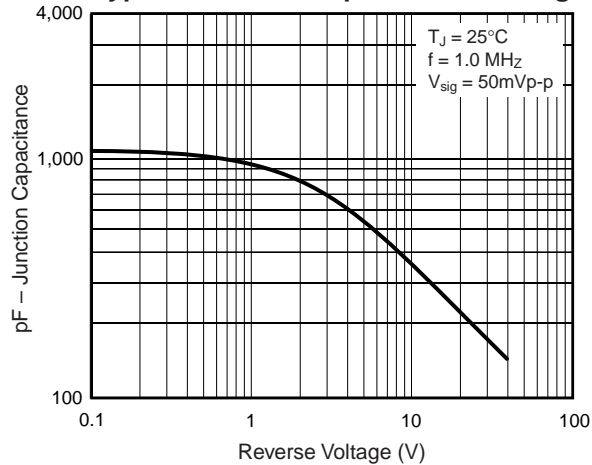
Typical Instantaneous Forward Characteristics Per Leg



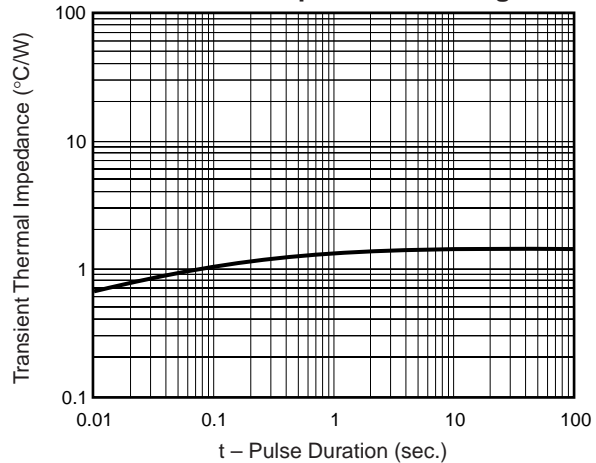
Typical Reverse Characteristics Per Leg



Typical Junction Capacitance Per Leg



Typical Transient Thermal Impedance Per Leg





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