

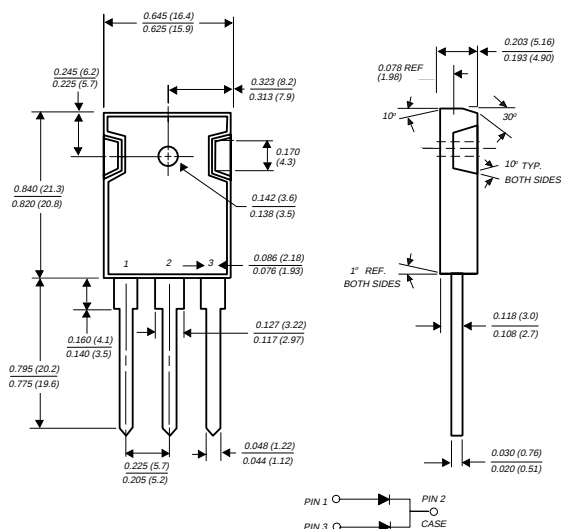
SBL2030PT AND SBL2040PT

SCHOTTKY RECTIFIER

Reverse Voltage - 30 and 40 Volts

Forward Current - 20.0 Amperes

TO-247AD



FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- ◆ 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
- ◆ Dual rectifier construction, positive center-tap
- ◆ 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 ounce, 5.6 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	SBL2030PT	SBL2040PT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	Volts
Maximum RMS voltage	V_{RMS}	21	28	Volts
Maximum DC blocking voltage	V_{DC}	30	40	Volts
Maximum average forward rectified current at $T_C=105^\circ\text{C}$	$I_{(AV)}$	20.0		Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	250.0		Amps
Maximum instantaneous forward voltage per leg at 10.0A (NOTE 1)	V_F	0.55		Volts
Maximum instantaneous current at $T_C=25^\circ\text{C}$ rated DC blocking voltage per leg (NOTE 1) $T_C=100^\circ\text{C}$	I_R	1.0	50.0	mA
Typical thermal resistance per leg (NOTE 2)	$R_{\theta JC}$	1.5		$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-40 to +125		$^\circ\text{C}$

NOTES:

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

(2) Thermal resistance from junction to case per leg

RATINGS AND CHARACTERISTIC CURVES SBL2030PT AND SBL2040PT

FIG. 1 - FORWARD CURRENT DERATING CURVE

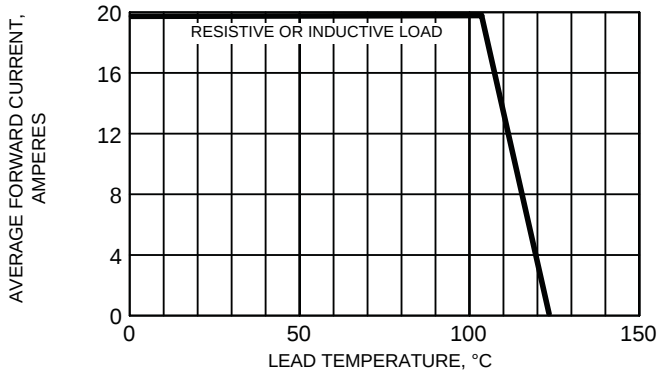


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

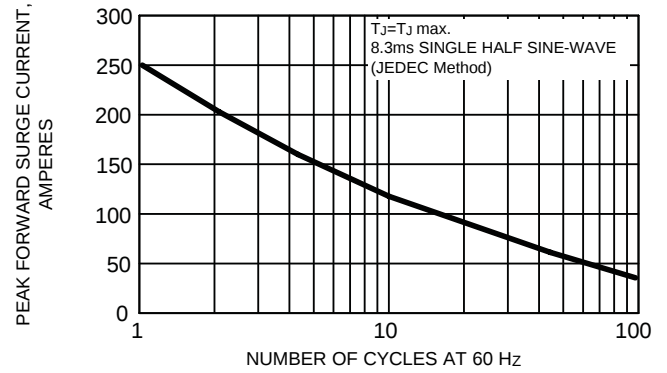


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

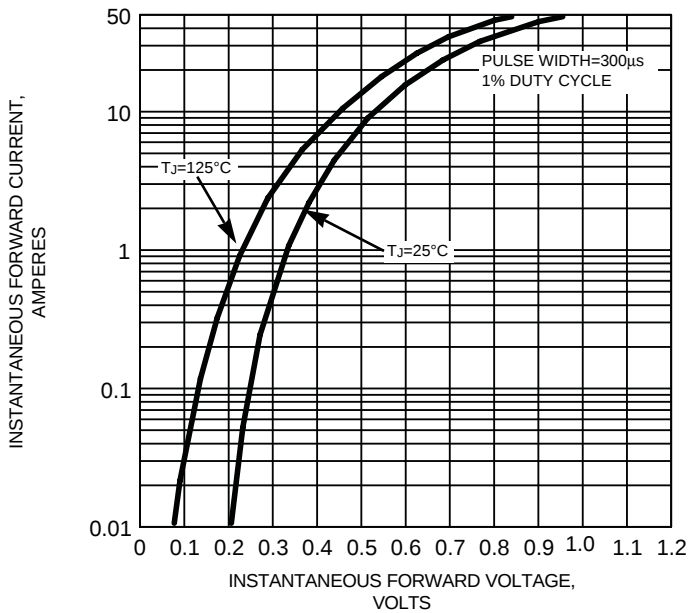


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

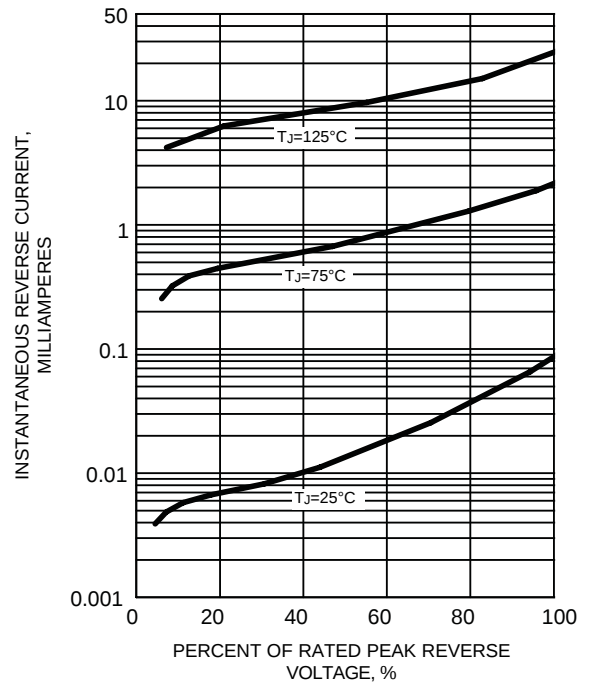


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

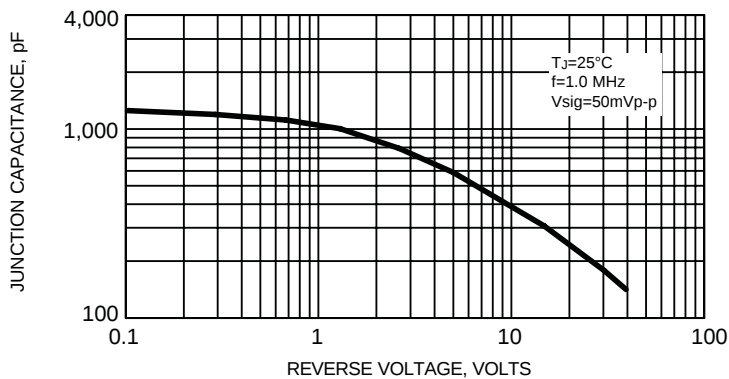


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

