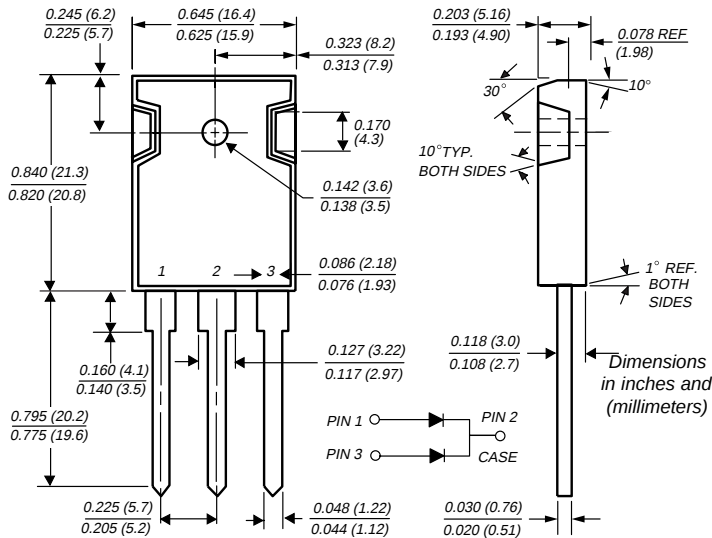


Dual Schottky Rectifier

Reverse Voltage 30 and 40 V

Forward Current 30 A

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 ounce, 5.6 grams

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	SBL3030PT	SBL3040PT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	V
Maximum RMS voltage	V_{RWM}	21	28	V
Maximum DC blocking voltage	V_{DC}	30	40	V
Maximum average forward rectified current (SEE FIG. 1)	$I_{F(AV)}$	30		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	275		A
Thermal resistance from junction to case per leg	$R_{\theta JC}$	1.5		°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-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 at: 15A (NOTE 1)	V_F	0.55		V
Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 1)	I_R	1.0 75		mA

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

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

FIG. 1 - FORWARD CURRENT DERATING CURVE

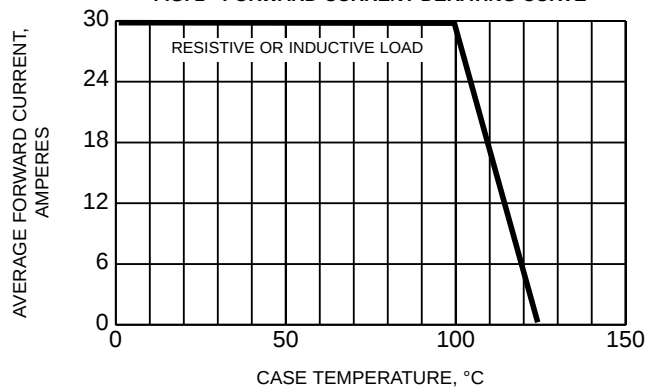


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

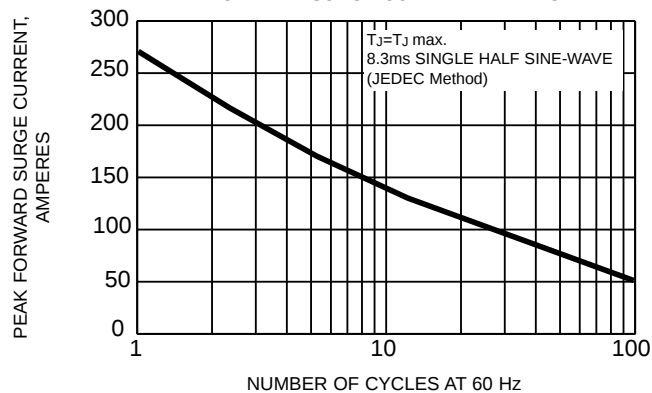


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

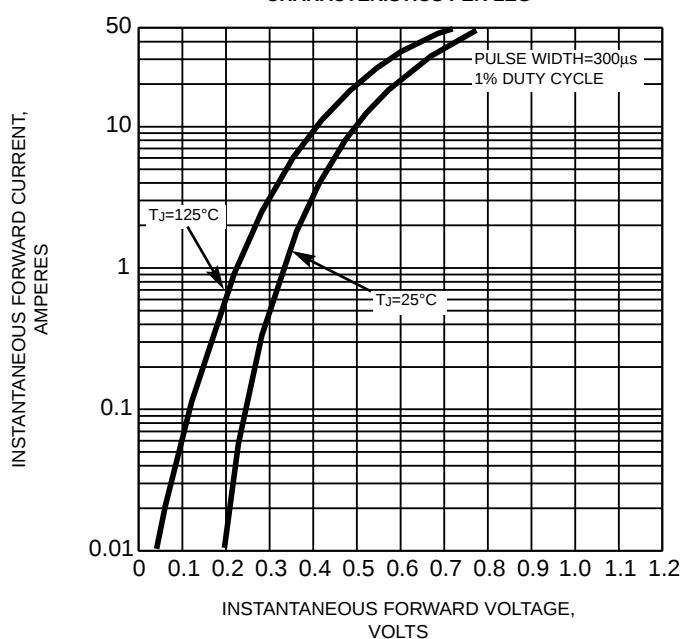


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

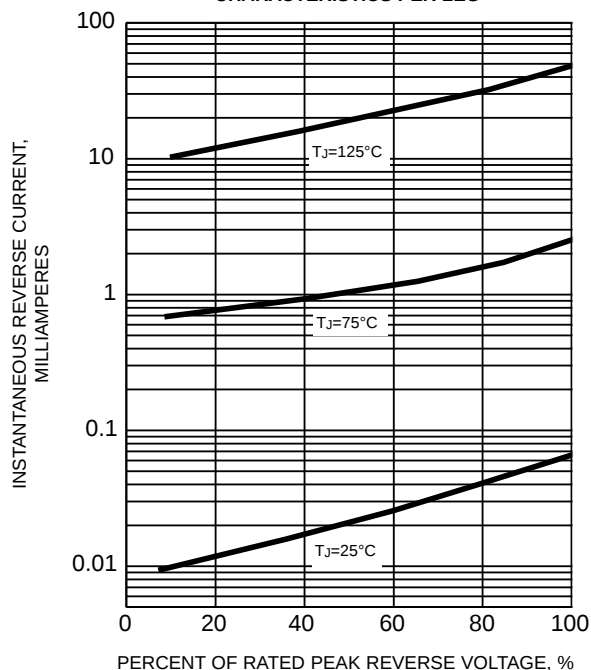


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

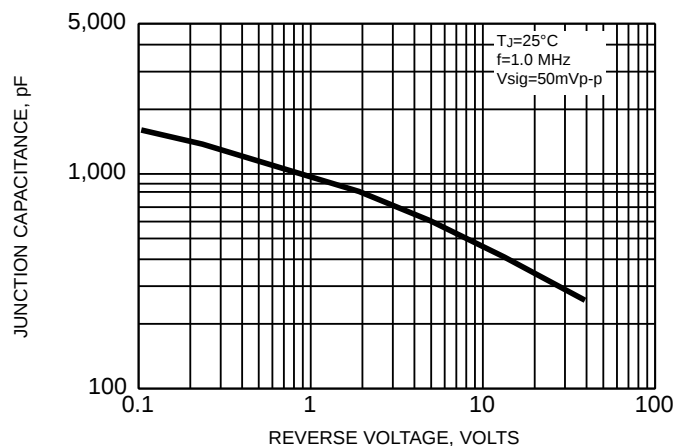


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

