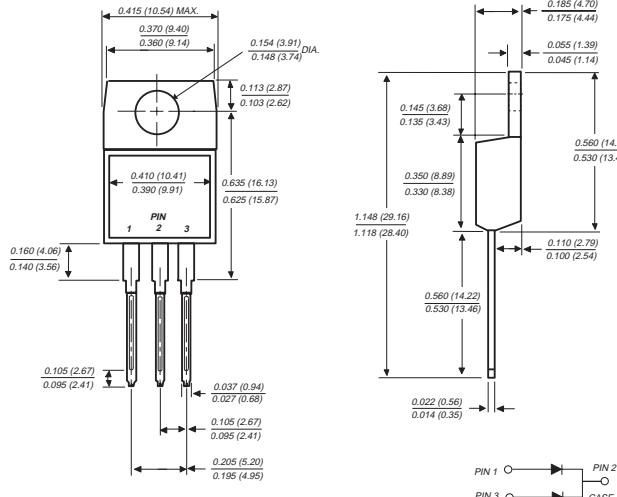


SBL25L20CT THRU SBL25L30CT

LOW VF SCHOTTKY RECTIFIER

Reverse Voltage - 20 and 25 Volts **Forward Current - 25.0 Amperes**

TO-220AB



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High current capability
- ◆ Very low forward voltage drop
- ◆ High surge capability
- ◆ Guardring for overvoltage protection
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.25" (6.35mm) from case



MECHANICAL DATA

Case: JEDEC TO-220AB molded plastic body

Terminals: Leads solderable per MIL-STD-750, Method 2026

Polarity: As marked

Mounting Position: Any

Mounting Torque: 5in.-lbs. max.

Weight: 0.08 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	SBL25L20CT	SBL25L25CT	SBL25L30CT	UNITS
Maximum repetitive peak reverse voltage	VRRM	20	25	30	Volts
Maximum RMS voltage	VRMS	14	17	21	Volts
Maximum DC blocking voltage	VDC	20	25	30	Volts
Maximum average forward rectified current at TC=95°C	IF(AV)		25.0		Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM		180.0		Amps
Maximum instantaneous forward voltage per leg at 12.5A (NOTE 1) TC=125°C TC=25°C	VF		0.39 0.49		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 1) TC=25°C TC=100°C TC=125°C	IR		1.0 50.0 100.0		mA
Typical thermal resistance per leg (NOTE 2)	R _{θJC}		1.5		°C/W
Operating junction and storage temperature range	T _J , T _{STG}		-40 to +125		°C

NOTES:

- (1) Pulse test: 300μs pulse width, 1% duty cycle
(2) Thermal resistance from junction to case per leg

RATINGS AND CHARACTERISTIC CURVES SBL25L20CT THRU SBL25L30CT

FIG. 1 - FORWARD CURRENT DERATING CURVE

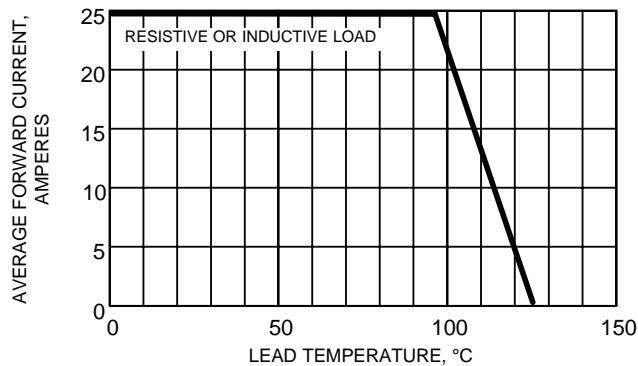


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

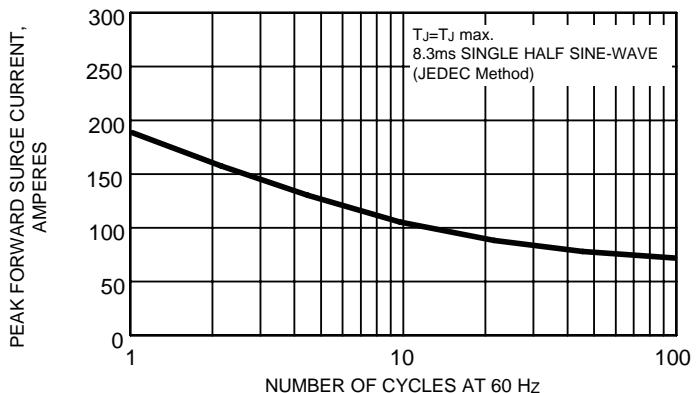


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

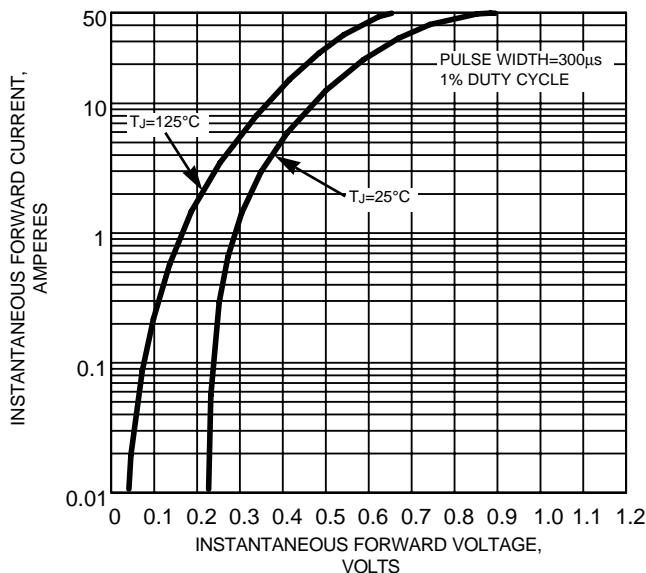


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

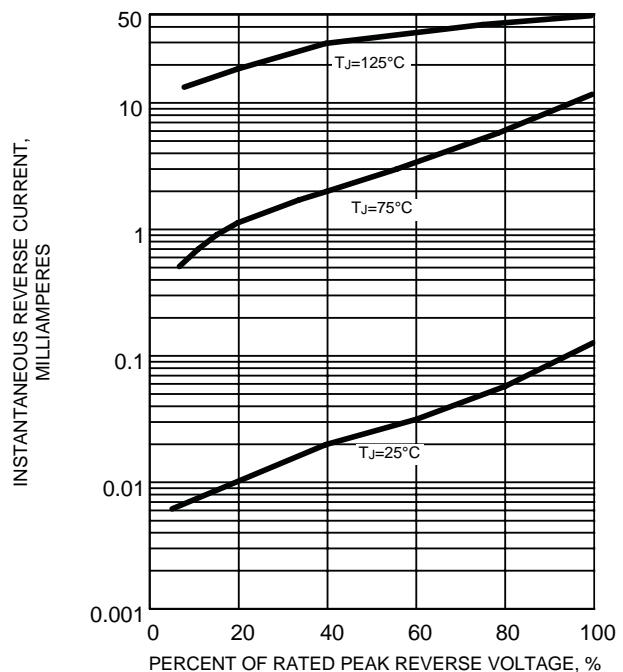


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

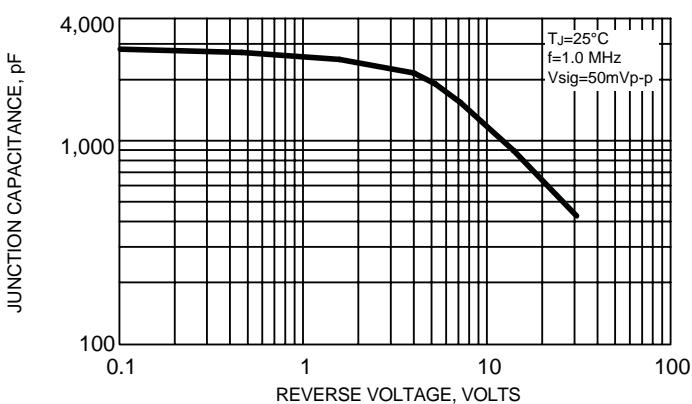


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

