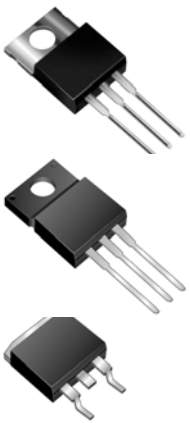
SBL16xxCT, SBLF16xxCT & SBLB16xxCT Series

Dual Schottky Barrier Rectifiers

Reverse Voltage 30 to 40 Volts Forward Current 16.0 Amperes

Features

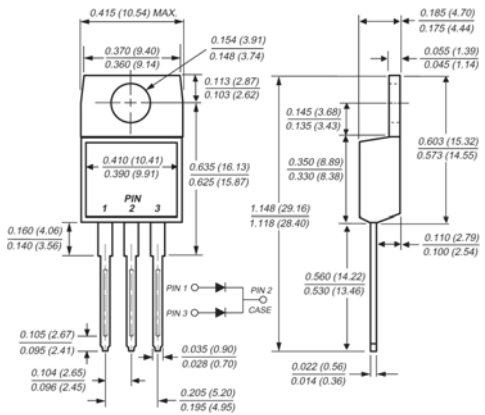
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters,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



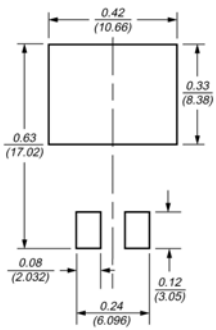
Mechanical Data

- Case: JEDEC TO-220AB, ITO-220AB & TO-263AB molded plastic body
- Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting Position: Any
- Mounting Torque: 10 in-lbs maximum
- Weight: 0.08 ounce, 2.24 grams

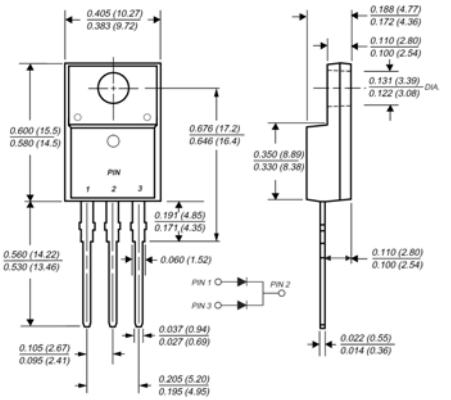
TO-220AB



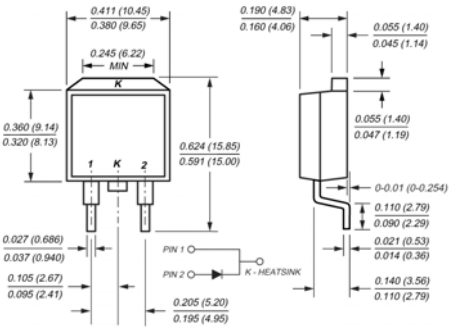
Mounting Pad Layout TO-263AB



ITO-220AB



TO-263AB(D^2PAK)



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

(T_C = 25°C unless otherwise noted)

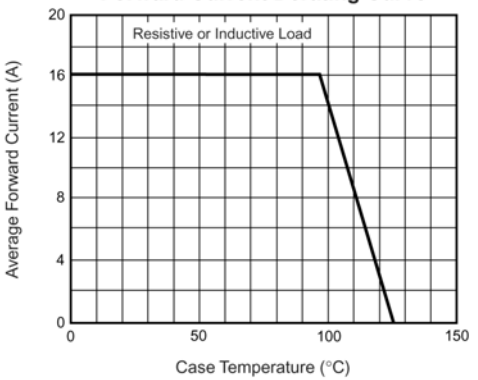
Parameter	Symbol	SBL1630CT	SBL1640CT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	Volts
Working peak reverse voltage	V_{RWM}	30	40	Volts
Maximum DC blocking voltage	V_{DC}	30	40	Volts
Maximum average forward rectified current at T_C=95°C — Total device Per leg	$I_{F(AV)}$	16 8.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) per leg	I_{FSM}	250		Amps
Maximum instantaneous forward voltage per leg at 8.0A (Note 4)	V_F	0.55		Volt
Maximum instantaneous reverse current at rated DC blocking voltage per leg (Note 4) — T_C=25°C T_C=100°C	I_R	0.5 50		mA
Typical thermal resistance from junction to case per leg	$R_{\theta JC}$	SBL 2.0 / SBLF 4.0 / SBLB 2.0		°C/W
RMS Isolation voltage (SBLF type only) from terminals to heatsink with t = 1.0 second, RH ≤ 30%	V_{ISOL}	4500 (Note 1) 3500 (Note 2) 1500 (Note 3)		Volts
Operating junction temperature range	T_J	-55 to +125		°C
Storage temperature range	T_{STG}	-55 to +150		°C

Notes: 1. Clip mounting (on case), where lead does not overlap heatsink with 0.110" offset
2. Clip mounting (on case), where leads do overlap heatsink
3. Screw mounting with 4-40 screw, where washer diameter is < 4.9 mm (0.19")
4. Pulse test: 300us pulse width, 1% duty cycle

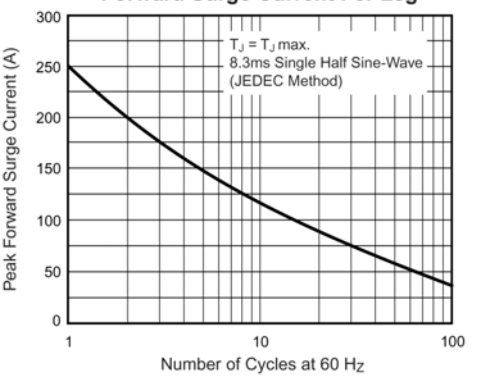
RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

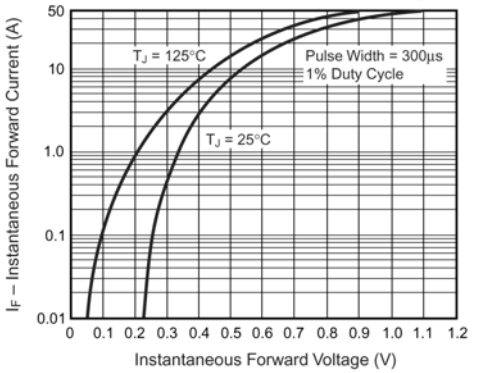
Forward Current Derating Curve



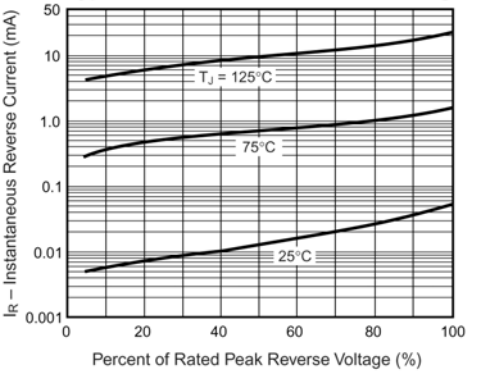
Maximum Non-Repetitive Peak Forward Surge Current Per Leg



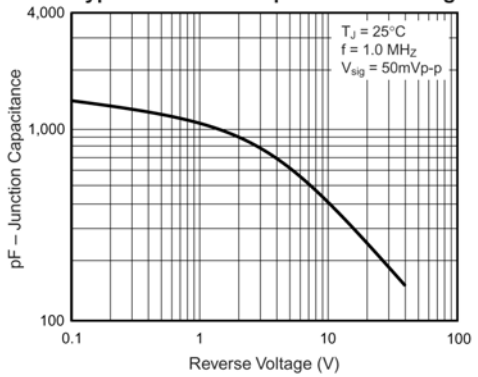
Typical Instantaneous Forward Characteristics Per Leg



Typical Reverse Characteristics Per Leg



Typical Junction Capacitance Per Leg



Typical Transient Thermal Impedance Per Leg

