



## SBL16xxCT, SBLF16xxCT & SBLB16xxCT Series

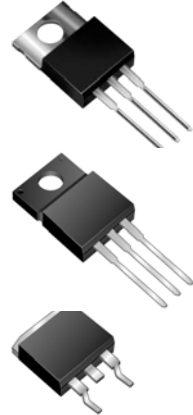
Dual Schottky Barrier Rectifiers  
Reverse Voltage 30 to 40 Volts Forward Current 16.0 Amperes

### Features

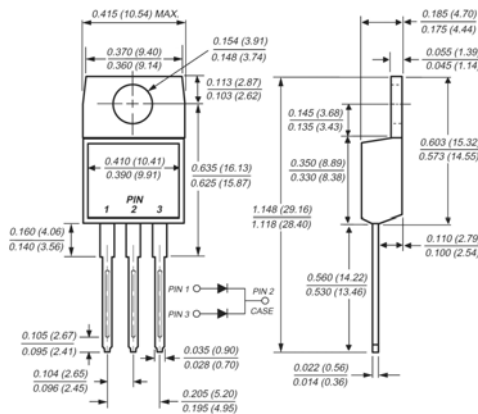
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Dual rectifier construction, positive center tap
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Guardring for overvoltage protection
- ◆ For use in low voltage, high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

### Mechanical Data

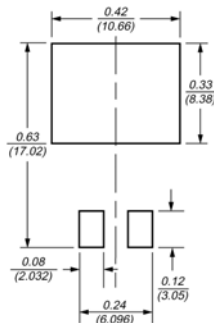
- ◆ Case: JEDEC TO-220AB, ITO-220AB & TO-263AB molded plastic body
- ◆ Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: As marked
- ◆ Mounting Position: Any
- ◆ Mounting Torque: 10 in-lbs maximum
- ◆ Weight: 0.08 ounce, 2.24 grams



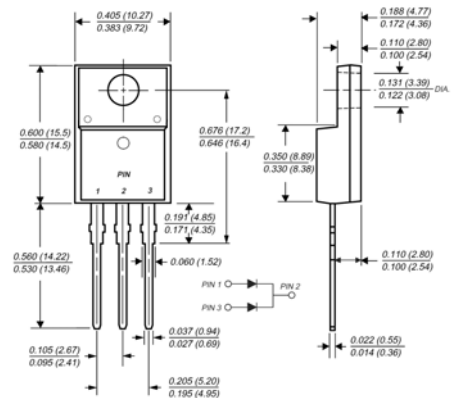
#### TO-220AB



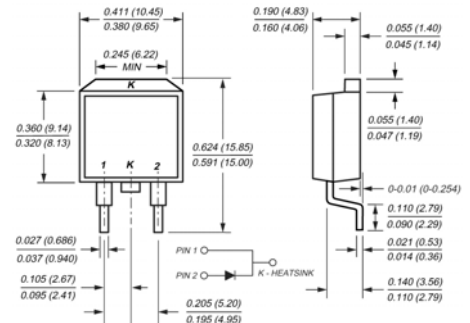
#### Mounting Pad Layout TO-263AB



#### ITO-220AB



#### TO-263AB(D<sup>2</sup>PAK)



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

( $T_c = 25^\circ\text{C}$  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 $T_c=95^\circ\text{C}$<br>Total device<br>Per leg                                           | $I_{F(AV)}$     | 16<br>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)<br>$T_c=25^\circ\text{C}$<br>$T_c=100^\circ\text{C}$ | $I_R$           | 0.5<br>50                                       |           | mA                 |
| Typical thermal resistance from junction to case per leg                                                                                 | $R_{\theta JC}$ | SBL 2.0 / SBLF 4.0 / SBLB 2.0                   |           | $^\circ\text{C/W}$ |
| RMS Isolation voltage (SBLF type only) from terminals to heatsink with $t = 1.0$ second, $RH \leq 30\%$                                  | $V_{ISOL}$      | 4500 (Note 1)<br>3500 (Note 2)<br>1500 (Note 3) |           | Volts              |
| Operating junction temperature range                                                                                                     | $T_J$           | -55 to +125                                     |           | $^\circ\text{C}$   |
| Storage temperature range                                                                                                                | $T_{STG}$       | -55 to +150                                     |           | $^\circ\text{C}$   |

- 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: 300 $\mu\text{s}$  pulse width, 1% duty cycle

## RATINGS AND CHARACTERISTIC CURVES

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

