

Pb Free Plating Product

SBL1630CT/SBL1640CT



16.0 Ampere Heatsink Pkg Common Cathode Schottky Barrier Rectifier Diodes

Features

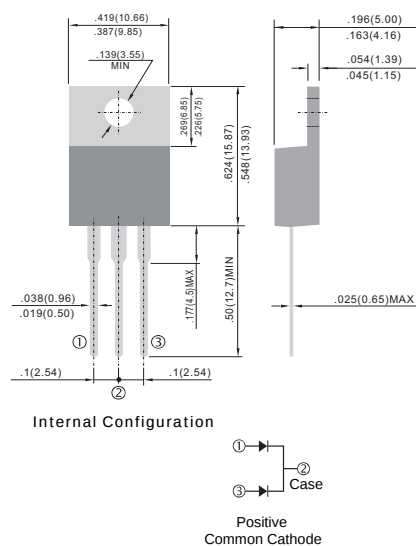
- ★ ThinkiSemi Planar NMBR Technology
- ★ Guardring for overvoltage protection
- ★ Ideally Suited for Automatic Assembly
- ★ Low Forward Voltage
- ★ High Surge Current Capability
- ★ Low Leakage Current

Applications

- ★ Freewheeling, Snubber, Clamp
- ★ Solar Junction Box Application
- ★ PFC
- ★ Plating Power Supply
- ★ Ultrasonic Cleaner and Welder
- ★ Converter & Chopper
- ★ UPS/LED SMPS/HID

TO-220AB/TO-220-3L

Unit : inch (mm)

**Maximum Ratings** ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	SBL1630CT/SBL1640CT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	45V(Typical>50V)	V
Working peak reverse voltage	V_{RWM}	32	V
Maximum DC blocking voltage	V_{DC}	45V(Typical>50V)	V
Maximum average forward rectified current at $T_C = 95^\circ\text{C}$	$I_{F(AV)}$	16 8.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) per leg	I_{FSM}	250	A
Operating junction and storage temperature range	T_J, T_{STG}	-40 to +125	$^\circ\text{C}$
RMS Isolation voltage (SBLF type only) from terminals to heatsink with $t = 1.0$ second, $RH \leq 30\%$	V_{ISOL}	4500 (NOTE 1) 3500 (NOTE 2) 1500 (NOTE 3)	V

Electrical Characteristics ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum instantaneous forward voltage per leg at 10.0 A (Note 4)	V_F	0.49V	V
Maximum instantaneous reverse current at rated DC blocking voltage per leg (Note 4)	I_R	0.5 50	mA

Thermal Characteristics ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	SBL1630CT/SBL1640CT	Unit
Typical thermal resistance from junction to case per leg	$R_{\theta JC}$	1.50	$^\circ\text{C/W}$

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 μs pulse width, 1% duty cycle

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

