

Pb Free Plating Product

SBL1640CG



16.0 Ampere, 45V PhotoVoltaic Common Cathode Schottky Barrier Rectifier Diodes

Features

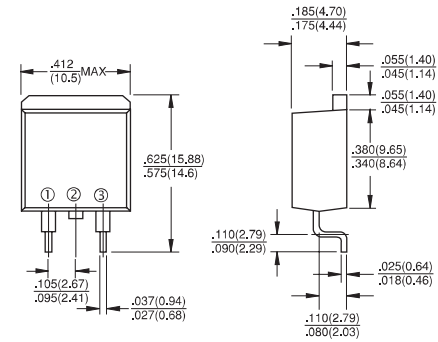
- ★ ThinkiSemi Planar NMBR Technology
- ★ Guardring for overvoltage protection
- ★ Ideally Suited for Automatic Assembly
- ★ Low Forward Voltage
- ★ High Surge Current Capability
- ★ Low Leakage Current

Applications

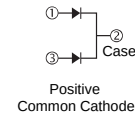
- ★ Freewheeling, Snubber, Clamp
- ★ Solar Junction Box Application
- ★ PFC
- ★ Plating Power Supply
- ★ Ultrasonic Cleaner and Welder
- ★ Converter & Chopper
- ★ UPS/LED SMPS/HID

D2PAK/TO-263AB

Unit : inch (mm)



Internal Configuration



Maximum Ratings (T_C = 25°C unless otherwise noted)

Parameter	Symbol	SBL1640CG	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°C	<i>Total device</i> <i>Per leg</i> 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	°C
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)	V

Electrical Characteristics (T_C = 25°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°C unless otherwise noted)

Parameter	Symbol	SBL1640CG	Unit
Typical thermal resistance from junction to case per leg	R _{θJC}	1.50	°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: 300μs pulse width, 1% duty cycle

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

