WON-TOP ELECTRONICS

SB1620CT – SB16100CT

16A DUAL SCHOTTKY BARRIER RECTIFIER

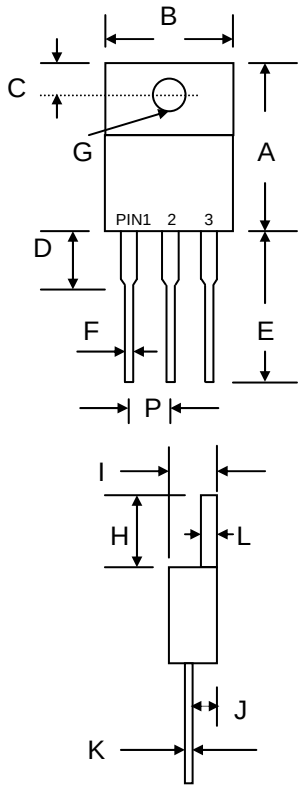
RoHS Pb

Features

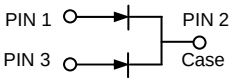
- Schottky Barrier Chip
- Guard Ring for Transient Protection
- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Current Capability
- Epoxy Meets UL 94V-0 Classification
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

Mechanical Data

- Case: TO-220, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 1.9 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 0.6 N.m Max.
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



TO-220		
Dim	**Min**	**Max**
A	13.90	15.90
B	9.80	10.70
C	2.54	3.43
D	3.56	4.56
E	12.70	14.73
F	0.51	0.96
G	3.55 Ø	4.09 Ø
H	5.75	6.85
I	4.16	5.00
J	2.03	2.92
K	0.30	0.65
L	1.14	1.40
P	2.29	2.79
All Dimensions in mm		



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SB 1620CT	SB 1630CT	SB 1640CT	SB 1645CT	SB 1650CT	SB 1660CT	SB 1680CT	SB 16100CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	45	50	60	80	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	32	35	42	56	70	V
Average Rectified Output Current Total Device @T_C = 100°C Per Diode	I_O	16 8.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150								A
Forward Voltage @I_F = 8.0A, T_J = 25°C per diode @I_F = 8.0A, T_J = 125°C	V_{FM}	0.55 0.50				0.75 0.65		0.85 0.75		V
Peak Reverse Current @T_J = 25°C At Rated DC Blocking Voltage @T_J = 100°C	I_{RM}	0.5 20								mA
Typical Junction Capacitance (Note 1)	C_J	500				350				pF
Thermal Resistance Junction to Ambient per diode Thermal Resistance Junction to Case per diode	$R_{\theta JA}$ $R_{\theta JC}$	60 2.0								°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150								°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

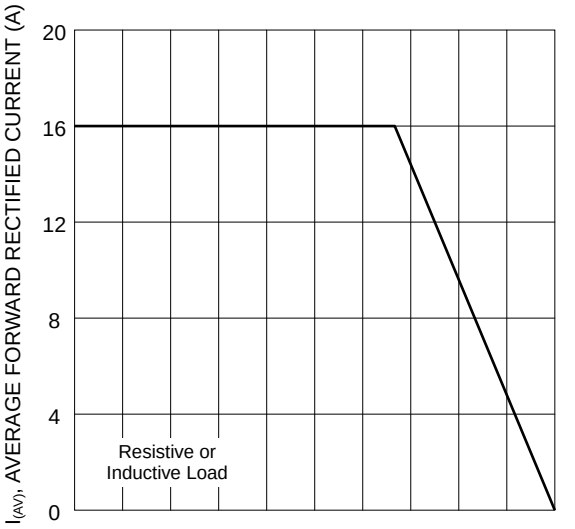


Fig. 1 Forward Current Derating Curve

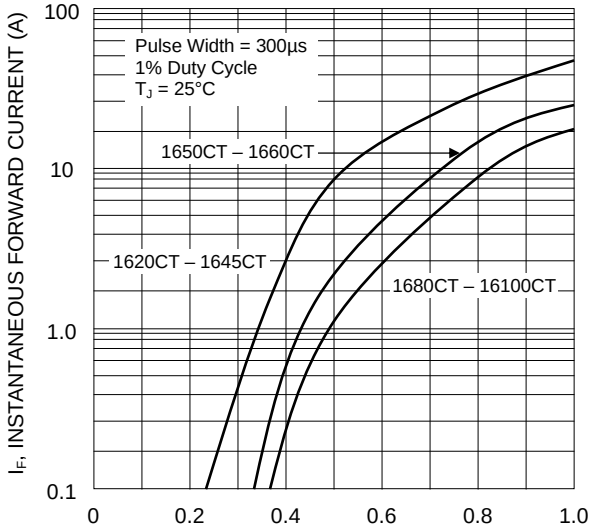


Fig. 2 Typical Forward Characteristics

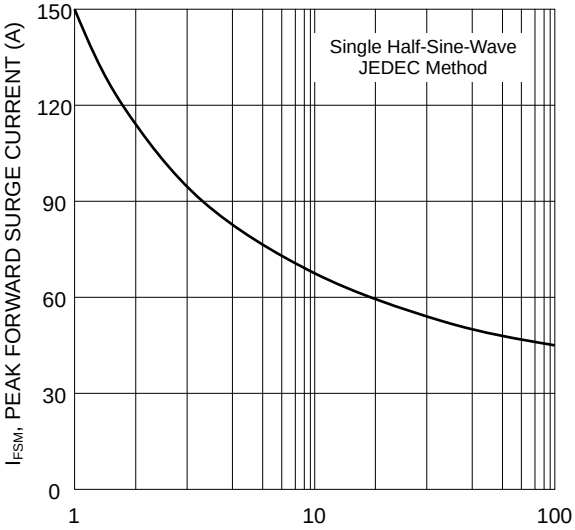


Fig. 3 Forward Surge Current Derating Curve

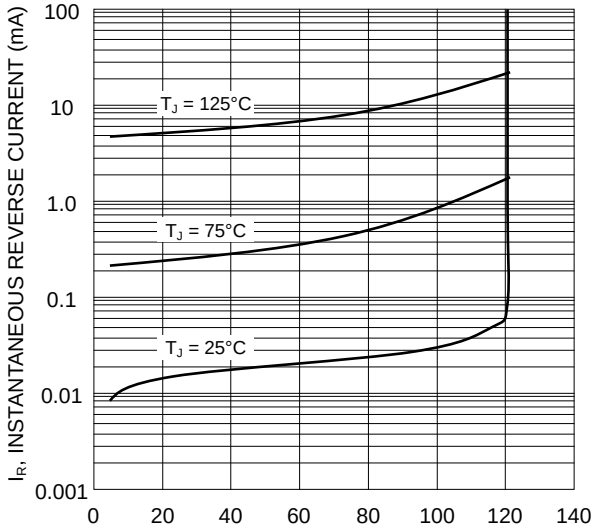


Fig. 4 Typical Reverse Characteristics

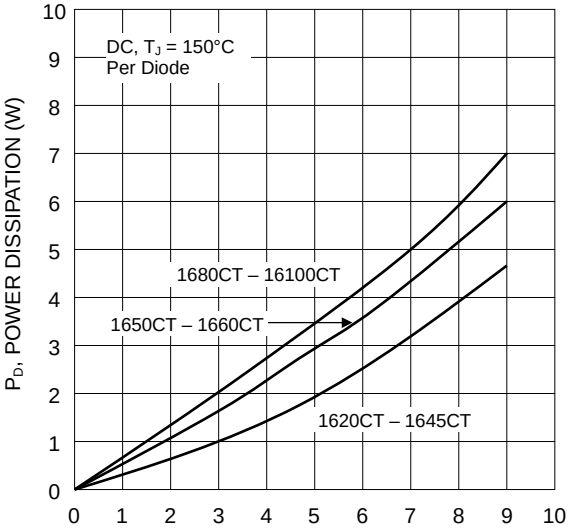


Fig. 5 Forward Power Dissipation

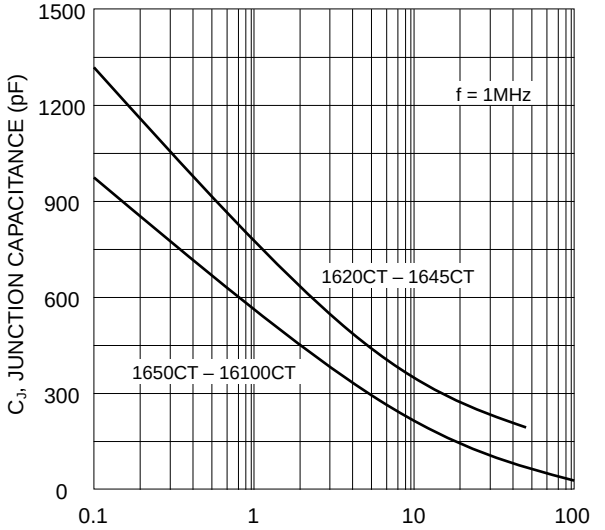
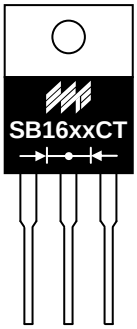


Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



SB16xxCT = Device Number
xx = 20, 30, 40, 45, 50, 60, 80 or 100
Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

Tube Size L x W x H (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
525 x 31 x 6	50	555 x 145 x 95	2,000	572 x 306 x 218	8,000	19.0

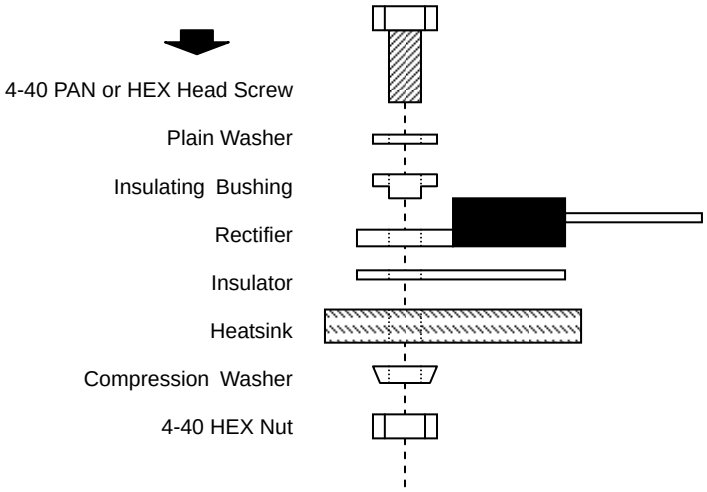
Note: 1. Anti-static tube, water clear color.

RECOMMENDED SCREW MOUNTING ARRANGEMENT

Recommended isolated mounting when screw is at heatsink potential. 4-40 hardware is used.

Screw should not be tightened with any type of air-forced torque or equipment that may cause high impact on device package. The insulating bushing inside the mounting hole will insure the screw threads do not contact the metal base.

The interface should apply a layer of thermal grease or a highly conductive thermal pad for better heat dissipation.



WON-TOP ELECTRONICS

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SB1620CT	TO-220	50 Units/Tube
SB1630CT	TO-220	50 Units/Tube
SB1640CT	TO-220	50 Units/Tube
SB1645CT	TO-220	50 Units/Tube
SB1650CT	TO-220	50 Units/Tube
SB1660CT	TO-220	50 Units/Tube
SB1680CT	TO-220	50 Units/Tube
SB16100CT	TO-220	50 Units/Tube

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, SB1620CT-LF**.

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We power your everyday.