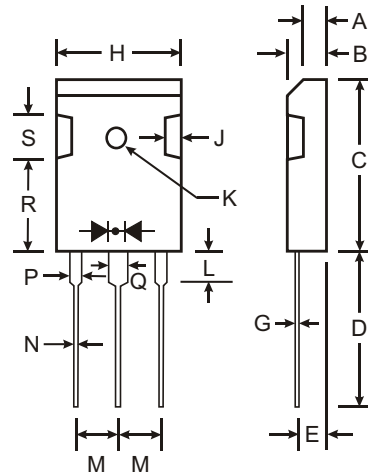


Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application

Mechanical Data

- Case: Molded Plastic
- Plastic Material - UL Flammability Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Marking: Type Number
- Weight: 5.6 grams (approx)



TO-3P		
Dim	Min	Max
A	1.88	2.08
B	4.68	5.36
C	20.63	22.38
D	18.5	21.5
E	2.1	2.4
G	0.51	0.76
H	15.38	16.25
J	1.90	2.70
K	2.9Ø	3.65Ø
L	3.78	4.50
M	5.2	5.7
N	0.89	1.53
P	1.82	2.46
Q	2.92	3.23
R	11.70	12.84
S	—	6.10
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	SBL 1630PT	SBL 1635PT	SBL 1640PT	SBL 1645PT	SBL 1650PT	SBL 1660PT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	35	40	45	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	24.5	28	31.5	35	42	V
Average Rectified Output Current (Note 1) @ $T_C = 95^{\circ}C$	I_O	16						A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	250						A
Forward Voltage Drop @ $I_F = 8.0A$, $T_C = 25^{\circ}C$	V_{FM}	0.55				0.70		V
Peak Reverse Current @ $T_C = 25^{\circ}C$ at Rated DC Blocking Voltage @ $T_C = 100^{\circ}C$	I_{RM}	0.5 50						mA
Typical Total Capacitance (Note 2)	C_T	700						pF
Typical Thermal Resistance Junction to Case (Note 1)	$R_{\theta JC}$	3.5						$^{\circ}C/W$
Operating and Storage Temperature Range	T_j , T_{STG}	-65 to +150						$^{\circ}C$

Notes: 1. Thermal resistance junction to case mounted on heatsink.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

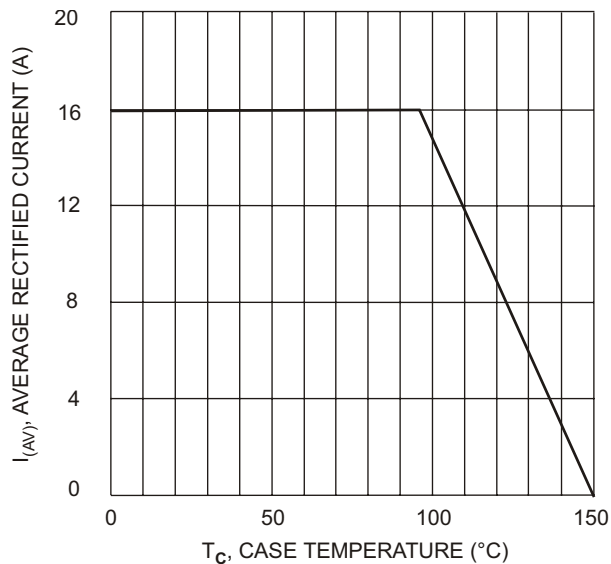


Fig. 1 Forward Current Derating Curve

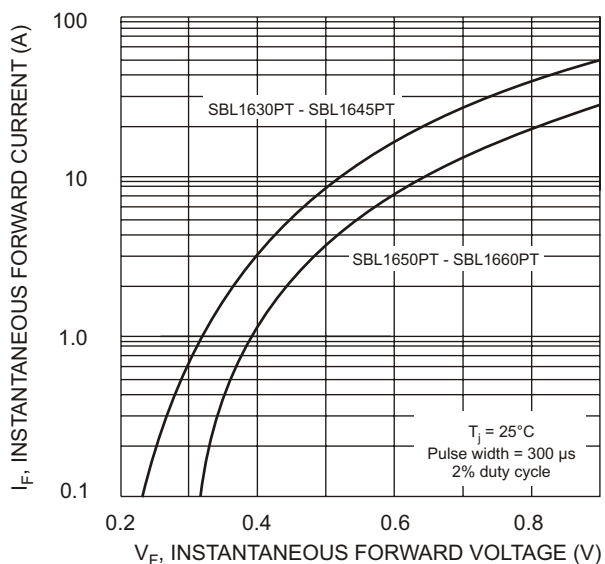


Fig. 1 Typical Forward Characteristics

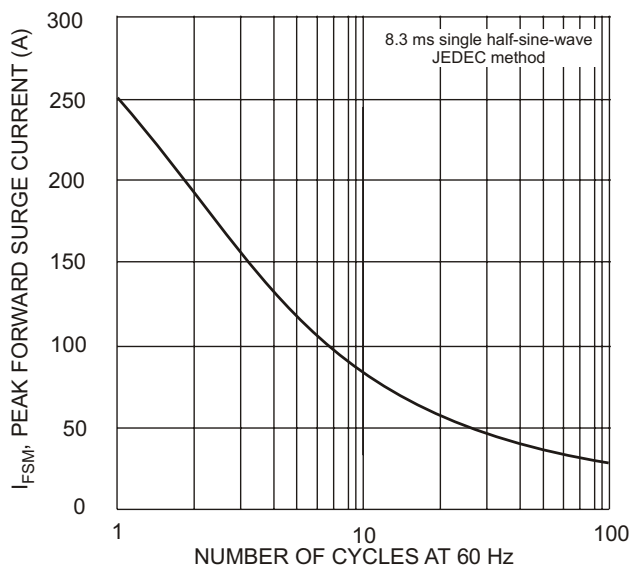


Fig. 3 Max Non-Repetitive Forward Surge Current

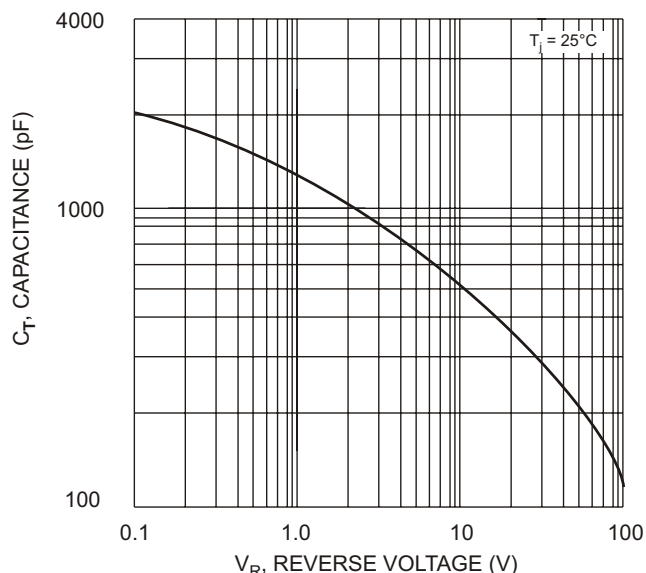


Fig. 4 Typical Total Capacitance per Element

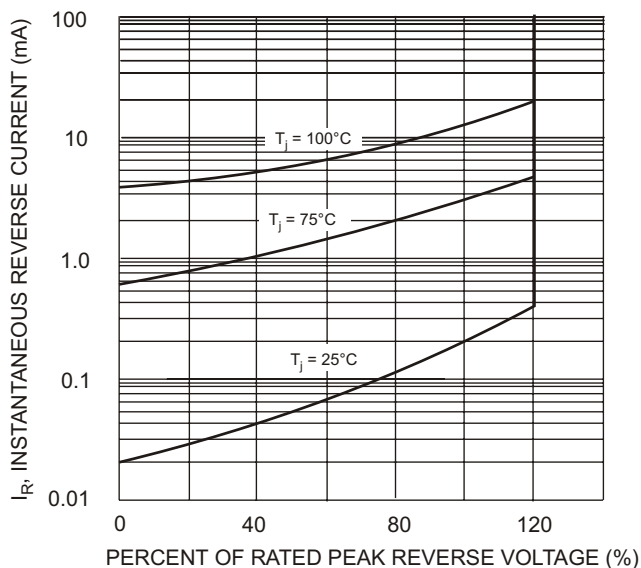


Fig. 5 Typical Reverse Characteristics per Element