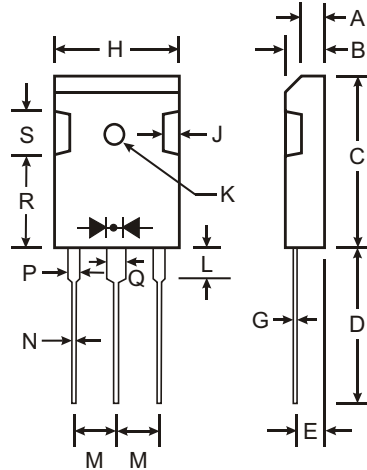


Features

- 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 Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Matte Tin Finish, 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	4.87	5.13
C	21.25	21.75
D	19.60	20.10
E	2.10	2.40
G	0.51	0.76
H	15.75	16.25
J	1.93	2.18
K	2.90Ø	3.20Ø
L	3.78	4.38
M	5.20	5.70
N	1.12	1.22
P	1.90	2.16
Q	2.93	3.22
R	11.70	12.80
S	4.40 Typical	
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	SBL 6030PT	SBL 6040PT	SBL 6050PT	SBL 6060PT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	40	50	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	28	35	42	V
Average Rectified Output Current @ $T_C = 100^{\circ}\text{C}$ (Note 1)	I_O	60				A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	500				A
Forward Voltage Drop @ $I_F = 30\text{A}$, $T_C = 25^{\circ}\text{C}$	V_{FM}	0.55		0.70		V
Peak Reverse Current @ $T_C = 25^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_C = 100^{\circ}\text{C}$	I_{RM}	20 200				mA
Typical Total Capacitance (Note 2)	C_T	1500				pF
Typical Thermal Resistance Junction to Case (Note 1)	$R_{\theta Jc}$	0.5				$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j , T_{STG}	-65 to +150				$^{\circ}\text{C}$

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

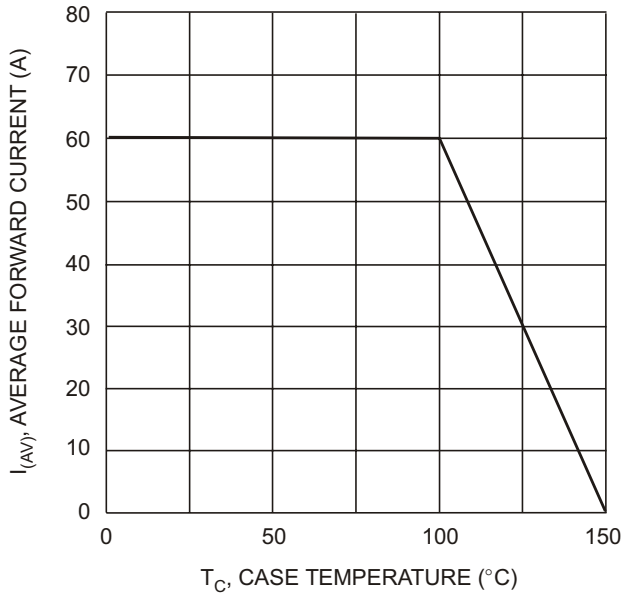


Fig. 1 Forward Current Derating Curve

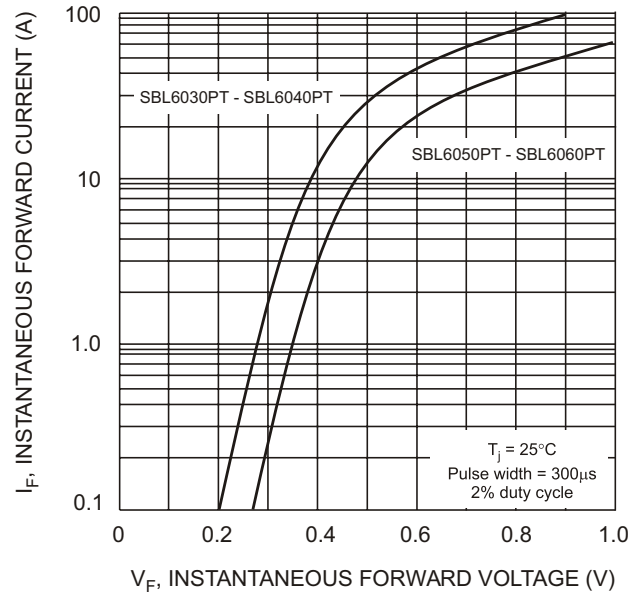


Fig. 2 Typical Forward Characteristics

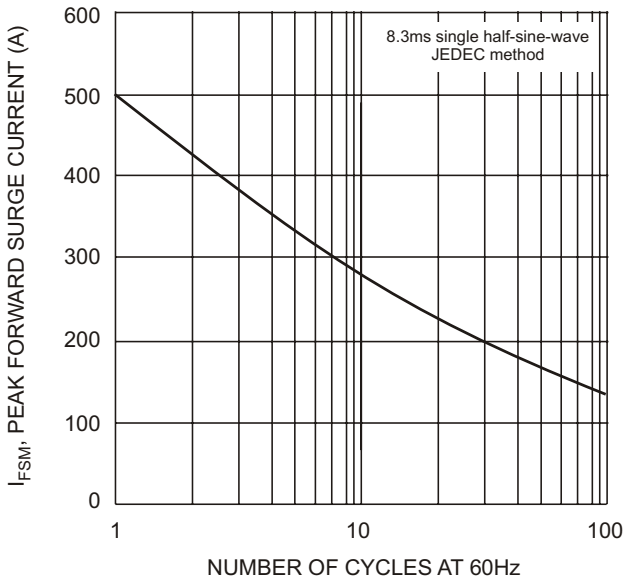


Fig. 3 Max Non-Repetitive Forward Surge Current

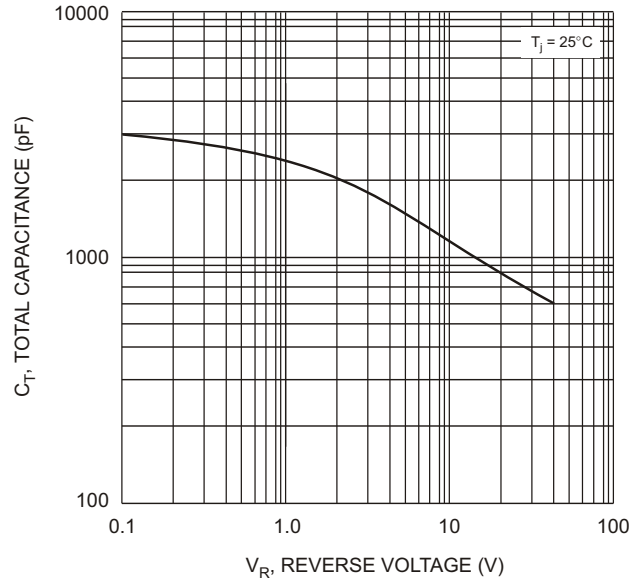


Fig. 4 Typical Total Capacitance per Element

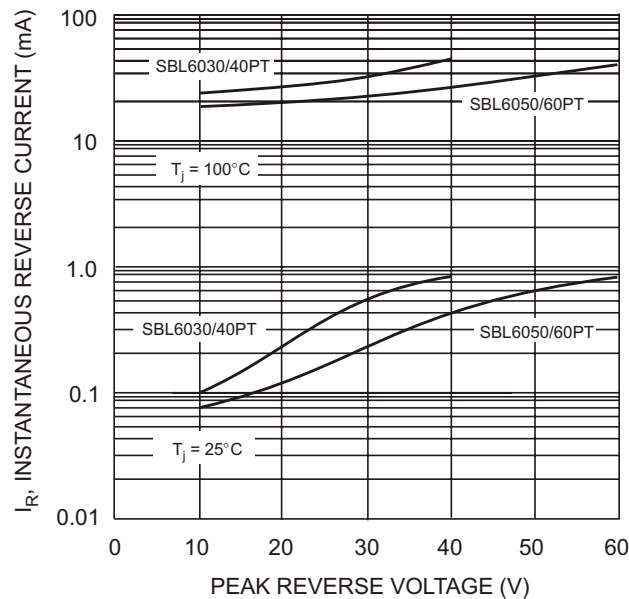


Fig. 5 Typical Reverse Characteristics