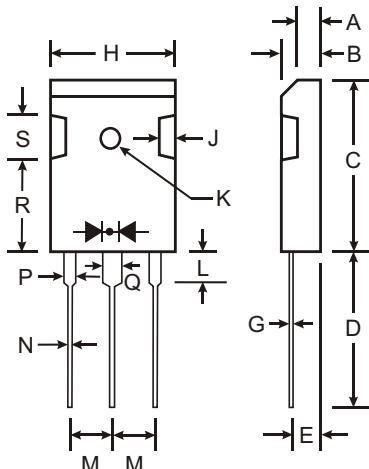


### Features

- 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
<b>A</b>	1.88	2.08
<b>B</b>	4.87	5.13
<b>C</b>	21.25	21.75
<b>D</b>	19.60	20.10
<b>E</b>	2.10	2.40
<b>G</b>	0.51	0.76
<b>H</b>	15.75	16.25
<b>J</b>	1.93	2.18
<b>K</b>	2.90Ø	3.20Ø
<b>L</b>	3.78	4.38
<b>M</b>	5.20	5.70
<b>N</b>	1.12	1.22
<b>P</b>	1.90	2.16
<b>Q</b>	2.93	3.22
<b>R</b>	11.70	12.80
<b>S</b>	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 3030PT	SBL 3035PT	SBL 3040PT	SBL 3045PT	SBL 3050PT	SBL 3060PT	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 @ $T_C = 95^\circ\text{C}$ (Note 1)	$I_O$			30				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$			275				A
Forward Voltage Drop @ $I_F = 15\text{A}$ , $T_C = 25^\circ\text{C}$	$V_{FM}$		0.55		0.70			V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_C = 100^\circ\text{C}$	$I_{RM}$			1.0	75			mA
Typical Total Capacitance (Note 2)	$C_T$			1100				pF
Typical Thermal Resistance Junction to Case (Note 1)	$R_{\theta JC}$			2.0				°C/W
Operating and Storage Temperature Range	$T_J$ , $T_{STG}$			-65 to +150				°C

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

