LITE-ON SEMICONDUCTOR

SBL4030PT thru 4060PT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE **- 30** to **60** Volts
FORWARD CURRENT **- 40** Amperes

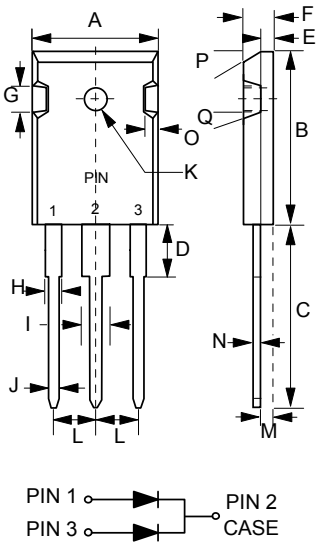
FEATURES

- Metal of silicon rectifier,majority carrier conducton
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage,high frequency inverters,free whelling,and polarity protection applications

MECHANICAL DATA

- Case : TO-3P molded plastic
- Polarity : As marked on the body
- Weight : 0.2 ounces, 5.6 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

TO-3P



TO-3P		
DIM.	MIN.	MAX.
A	15.75	16.25
B	21.25	21.75
C	19.60	20.10
D	3.78	4.38
E	1.88	2.08
F	4.87	5.13
G	4.4TYP.	
H	1.90	2.16
I	2.93	3.22
J	1.12	1.22
K	2.90 ∅	3.20 ∅
L	5.20	5.70
M	2.10	2.40
N	0.51	0.76
O	1.93	2.18
P	20°TYP	
Q	10°TYP	
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SBL 4030PT	SBL 4035PT	SBL 4040PT	SBL 4045PT	SBL 4050PT	SBL 4060PT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	35	40	45	50	60	V
Maximum RMS Voltage	V_{RMS}	21	24.5	28	31.5	35	42	V
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	50	60	V
Maximum Average Forward Rectified Current @TC=100℃	$I_{(AV)}$	40						A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	375						A
Maximum forward Voltage at 20A DC @TJ =25℃	V_F	0.58				0.70		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ =25℃ @TJ =100℃	I_R	10 100						mA
Typical Junction Capacitance per element (Note1)	C_J	800						pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.4						°C/W
Operating Temperature Range	T_J	-55 to +125						℃
Storage Temperature Range	T_{STG}	-55 to +150						℃

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0VDC.
2.Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES
SBL4030PT thru SBL4060PT

FIG.1 - FORWARD CURRENT DERATING CURVE

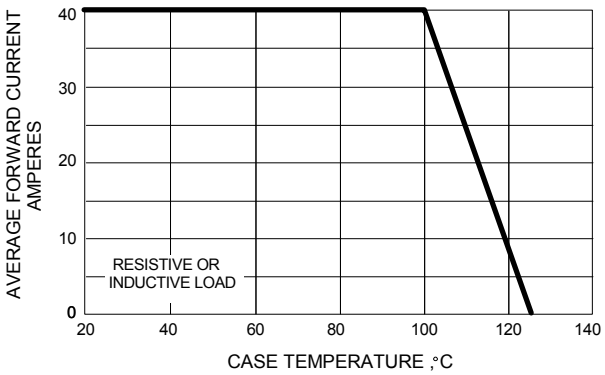


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

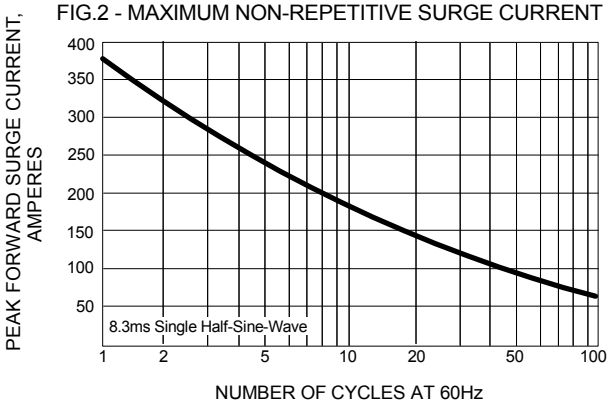


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

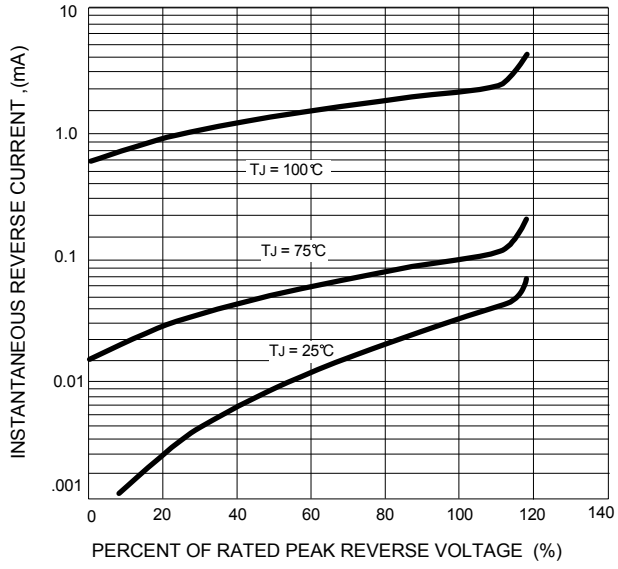


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

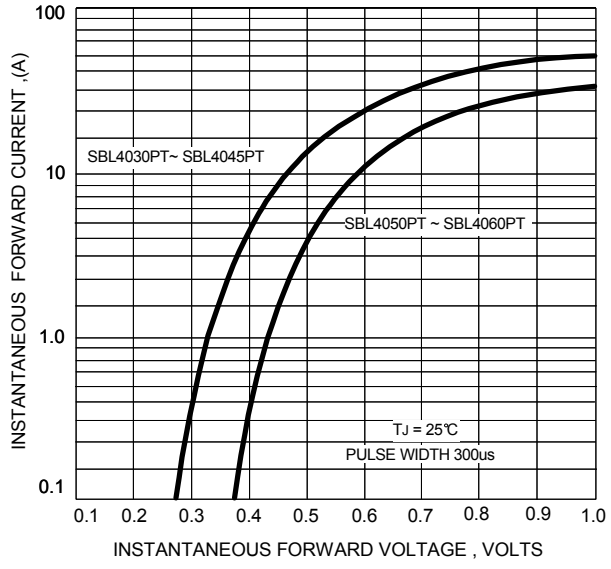


FIG.5 - TYPICAL JUNCTION CAPACITANCE