

SCHOTTKY BARRIER RECTIFIERS

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

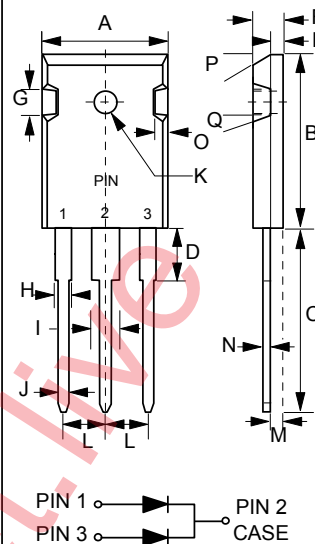
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- 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 wheeling, 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°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	SBL6030PT	SBL6040PT	SBL6050PT	SBL6060PT	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30	40	50	60	V
Maximum RMS Voltage	V _{RMS}	21	28	35	42	V
Maximum DC Blocking Voltage	V _{DC}	30	40	50	60	V
Maximum Average Forward Rectified Current @T _C =100°C	I(AV)	60				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load @T _A =25°C	I _{FSM}	450				A
Maximum forward Voltage at 30A DC @T _J =25°C	V _F	0.55		0.70		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J =25°C @T _J =100°C	I _R	10 200				mA
Typical Junction Capacitance per element (Note1)	C _J	1000		550		pF
Typical Thermal Resistance (Note 2)	R _{θJC}	0.5				°C/W
Operating Temperature Range	T _J	-55 to +125				°C
Storage Temperature Range	T _{STG}	-55 to +150				°C

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

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FIG.1 - FORWARD CURRENT DERATING CURVE

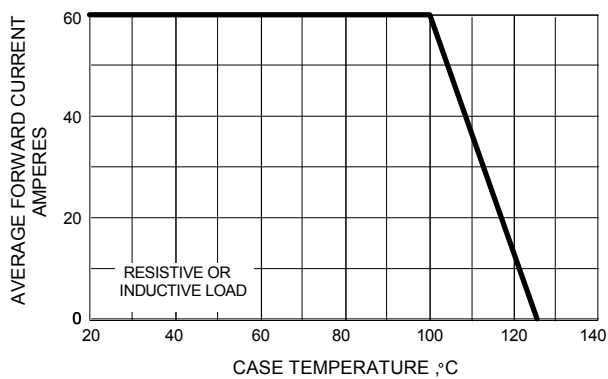


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

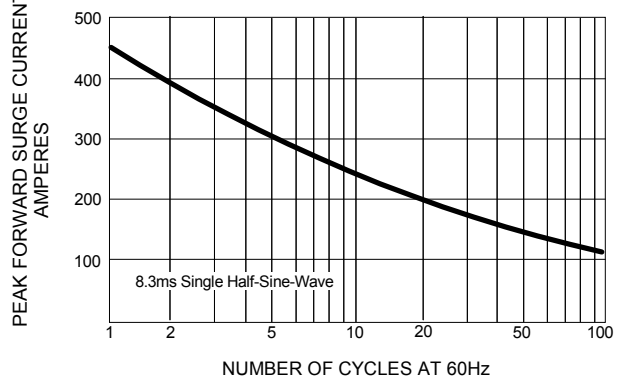


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

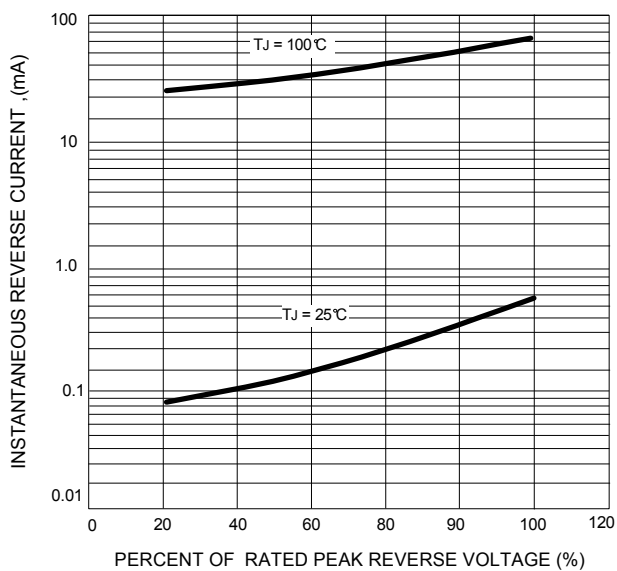


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

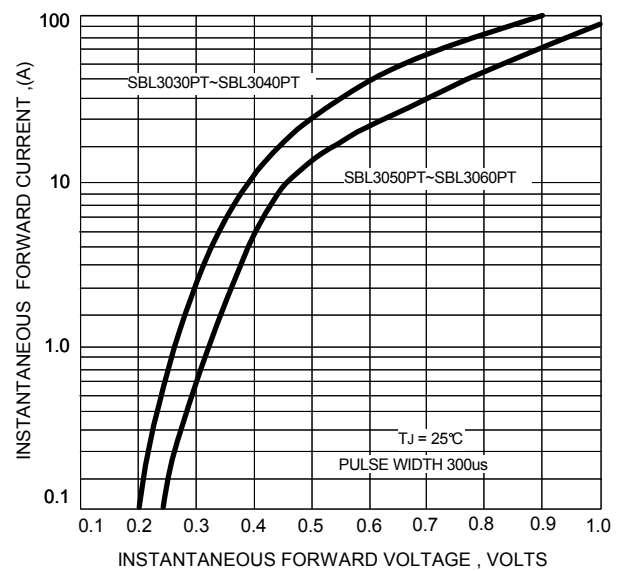
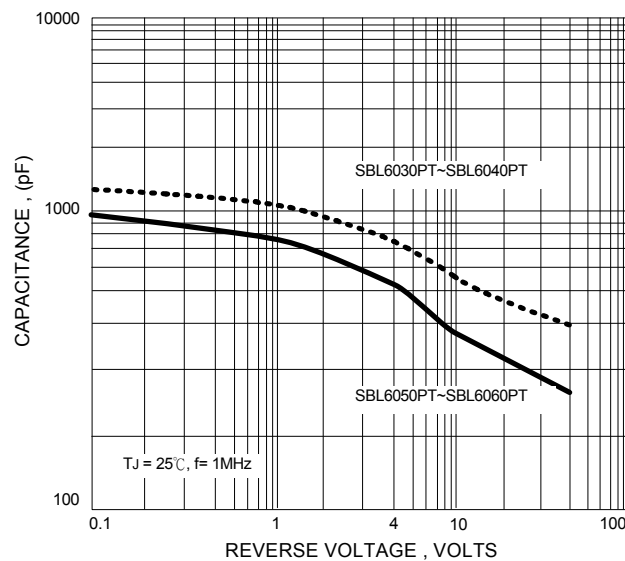


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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