

SCHOTTKY BARRIER RECTIFIERS

**REVERSE VOLTAGE – 30 to 45 Volts
FORWARD CURRENT – 30 Amperes**

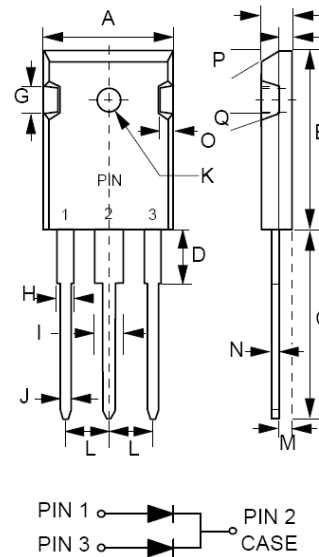
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capability
- 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 \varnothing	3.20 \varnothing
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.

PARAMETER	SYMBOL	SBL3030PT	SBL3035PT	SBL3040PT	SBL3045PT	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	30	35	40	45	V
Maximum RMS Voltage	V_{RMS}	21	24.5	28	31.5	V
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	V
Maximum Average Forward Rectified Current @TC=95°C (See Fig.1)	$I_{(AV)}$	30				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	275				A
Maximum forward Voltage at 15.0 A DC per element	VF	0.55				V
Maximum DC Reverse Current at Rated DC Blocking Voltage per element @Tj=25°C @Tj=100°C	IR	0.5 50				mA
Typical Junction Capacitance per element (Note 1)	C_J	550				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.6				°C/W
Operating junction temperature range	T_J	-55 to +125				°C
Storage temperature range	T_{STG}	-55 to +150				°C

Note :

REV. 2, Apr-2011, KTHD27

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0 V_{DC} .
- (2) Thermal Resistance Junction to Case, device mounted on L150 x W150 x H2mm_copper heat sink.

FIG.1- FORWARD CURRENT DERATING CURVE

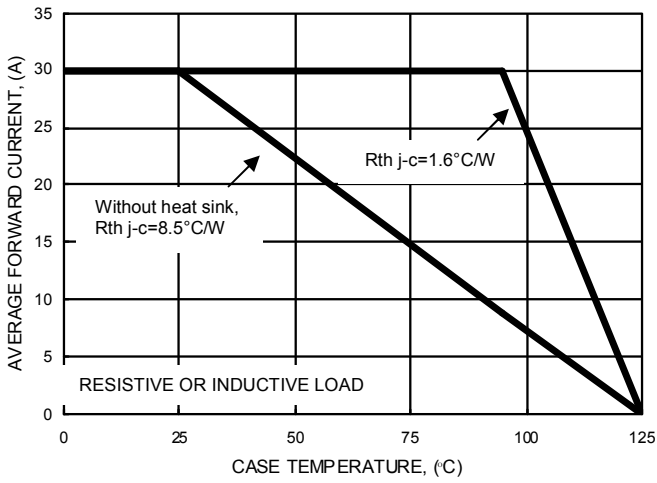


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

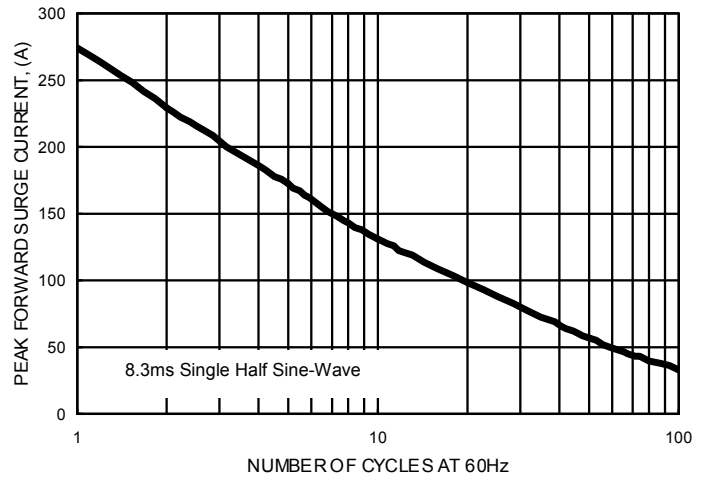


FIG.3- TYPICAL REVERSE CHARACTERISTICS

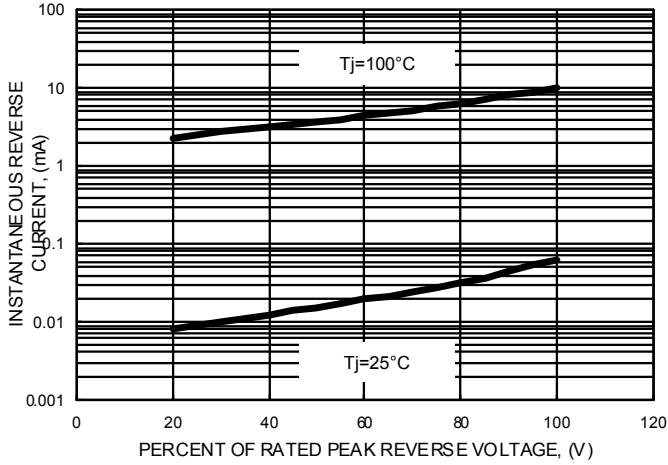


FIG.4- TYPICAL FORWARD CHARACTERISTICS

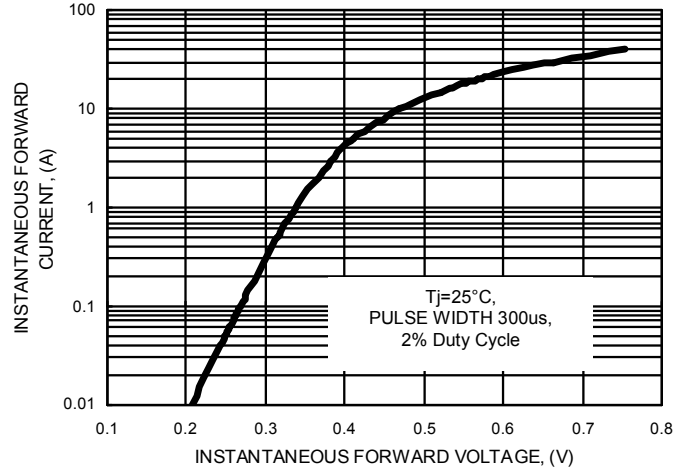


FIG.5- TYPICAL JUNCTION CAPACITANCE

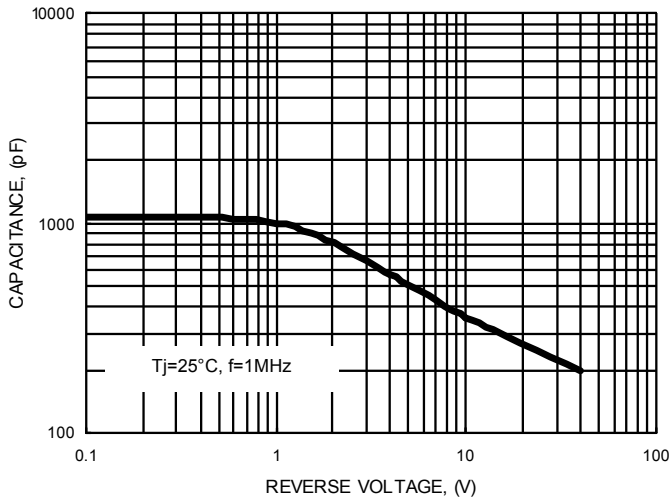
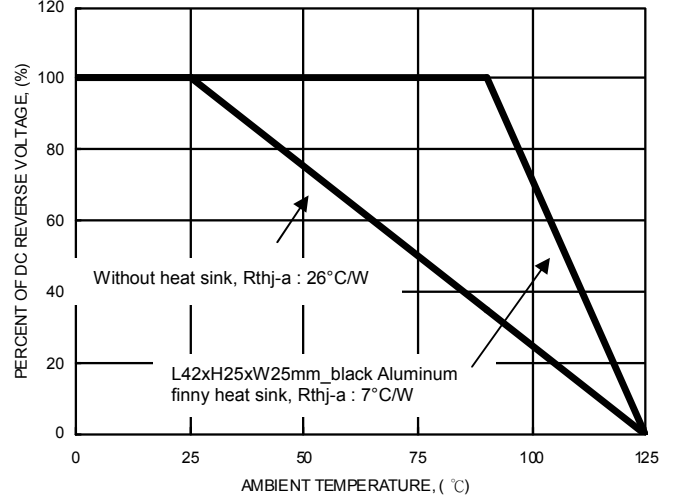


FIG.6- DC REVERSE VOLTAGE DERATING CURVE



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