

**SCHOTTKY BARRIER RECTIFIERS**

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

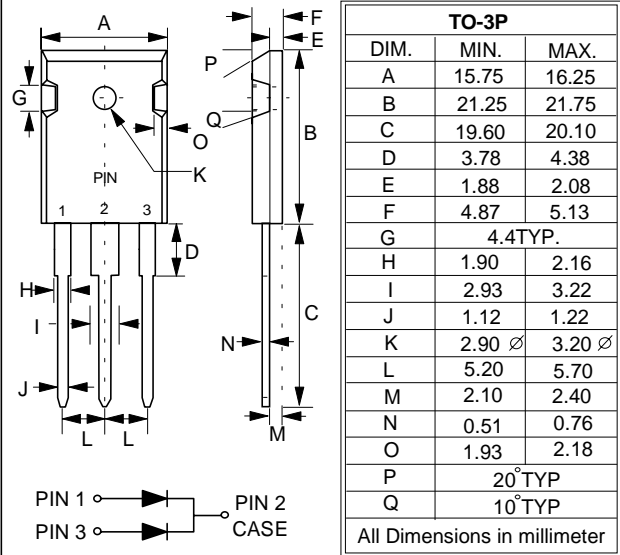
**FEATURES**

- 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

**TO-3P**



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

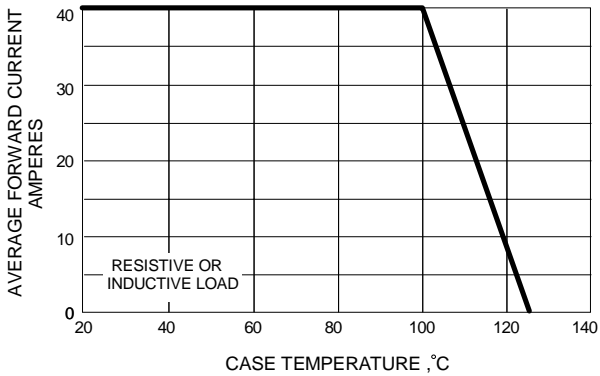
Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SBL 4030PT	SBL 4035PT	SBL 4040PT	SBL 4045PT	SBL 4050PT	SBL 4060PT	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	30	35	40	45	50	60	V
Maximum RMS Voltage	VRMS	21	24.5	28	31.5	35	42	V
Maximum DC Blocking Voltage	VDC	30	35	40	45	50	60	V
Maximum Average Forward Rectified Current @TC=100°C	I(AV)	40						A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	IFSM	375						A
Maximum forward Voltage at 20A DC @TJ=25°C	VF	0.58			0.70			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C	IR	10			100			mA
Typical Junction Capacitance per element (Note1)	CJ	800						pF
Typical Thermal Resistance (Note 2)	RθJC	1.4						°C/W
Operating Temperature Range	TJ	-55 to +125						°C
Storage Temperature Range	TSTG	-55 to +150						°C

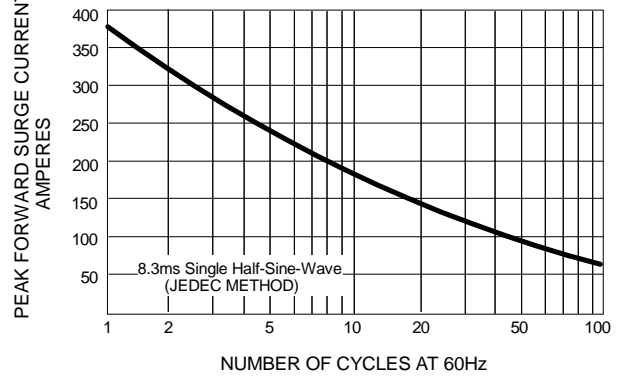
NOTES : 1. Measured at 1.0MHz and applied reverse voltage of 4.0VDC.  
2. Thermal Resistance Junction to Case.

REV. 2, 01-Dec-2000, KTHD12

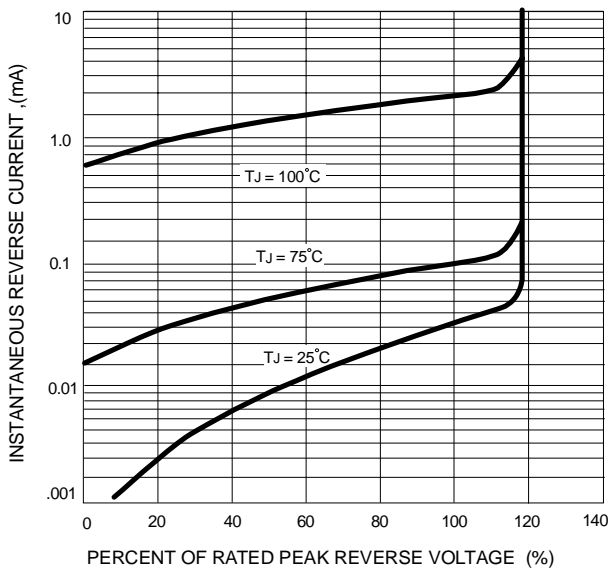
**FIG.1 - FORWARD CURRENT DERATING CURVE**



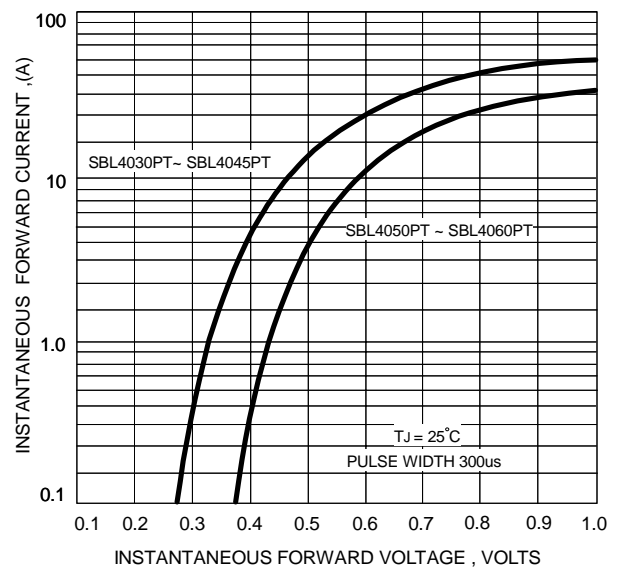
**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 - TYPICAL REVERSE CHARACTERISTICS**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL JUNCTION CAPACITANCE**

