

**SCHOTTKY BARRIER RECTIFIERS**

REVERSE VOLTAGE - 30 to 60 Volts  
FORWARD CURRENT - 20 Amperes

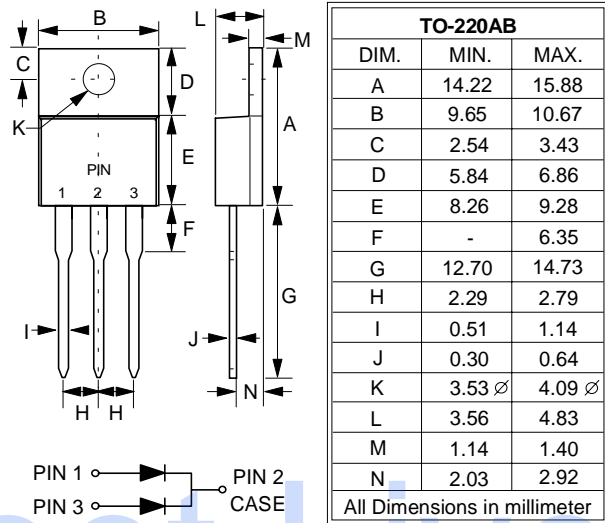
**FEATURES**

- 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 whelling, and polarity protection applications

**MECHANICAL DATA**

- Case : TO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.08 ounces, 2.24 grams
- Mounting position : Any

**TO-220AB**



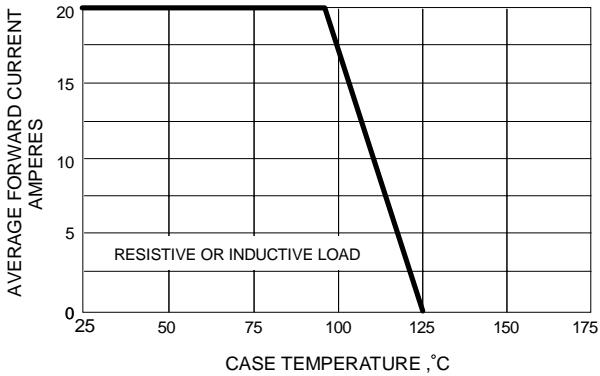
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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%

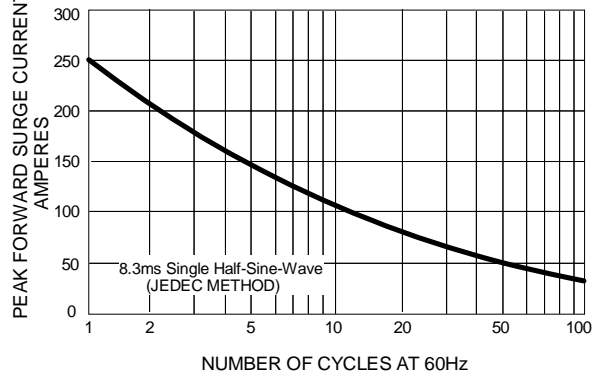
CHARACTERISTICS	SYMBOL	SBL 2030CT	SBL 2035CT	SBL 2040CT	SBL 2045CT	SBL 2050CT	SBL 2060CT	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	30	35	40	45	50	60	V
Maximum RMS Voltage	VRMS	21	24.5	28	31.5	35	42	V
Maximum DC Blocking Voltage	VDC	30	35	40	45	50	60	V
Maximum Average Forward Rectified Current (See Fig.1) @TC=95°C	I(AV)	20						A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	IFSM	250						A
Maximum Forward Voltage at 10A DC (Note 1)	VF	0.55				0.75		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C	IR	1				50		mA
Typical Junction Capacitance per element (Note 2)	CJ	600						pF
Typical Thermal Resistance (Note 3)	RθJC	2.0						°C/W
Operating Temperature Range	TJ	-55 to +125						°C
Storage Temperature Range	TSTG	-55 to +150						°C

NOTES : 1. 300us Pulse Width, 2% Duty Cycle.  
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3. Thermal Resistance Junction to Case.

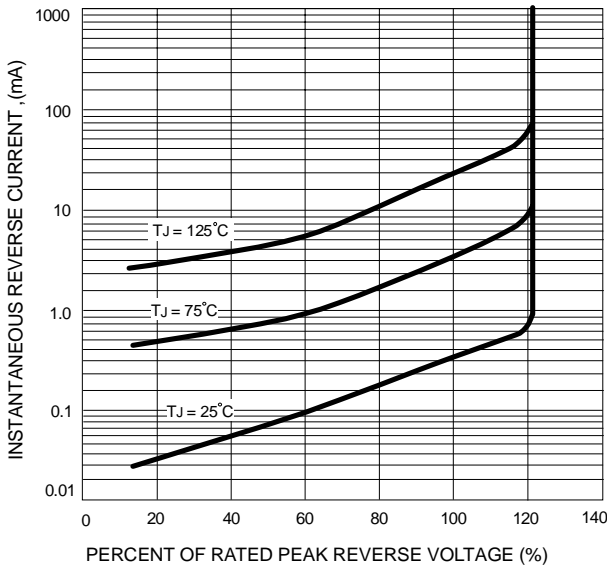
**FIG.1 - FORWARD CURRENT DERATING CURVE**



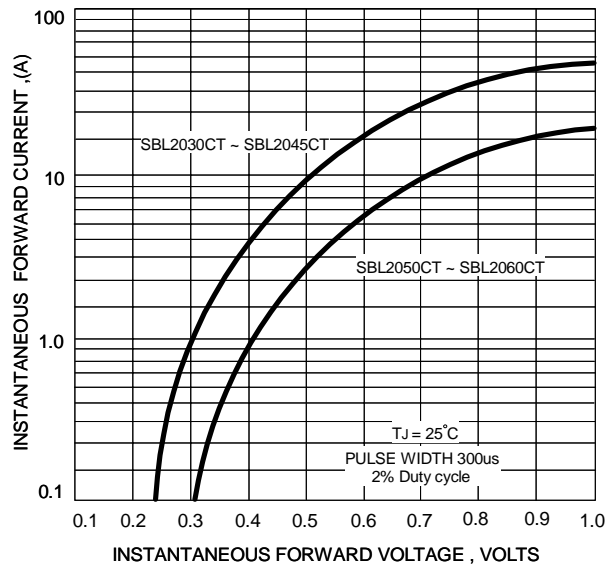
**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 - TYPICAL REVERSE CHARACTERISTICS**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL JUNCTION CAPACITANCE**

