



SEP ELECTRONIC CORP.

# SBL1030 thru SBL1060

**10 A Schottky Barrier Rectifier**  
Rectifier Reverse Voltage 30 to 60V



## Features

- Extremely low VF
- Epitaxial construction
- Low power loss, high efficiency
- Low stored charge, majority carrier construction
- Plastic material has UL flammability classification 94V-0

## Mechanical Data

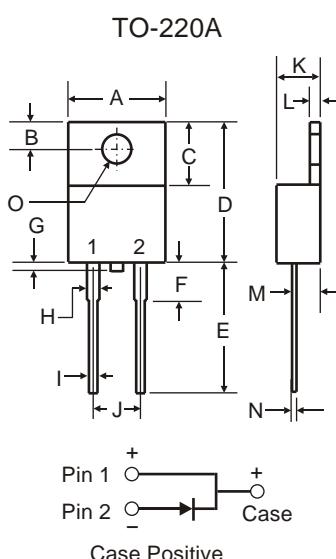
Case: Molded plastic

Terminals: Solder plated solderable per MIL-STD-202,  
Method 208

Polarity: As marked on body

Mounting Position: Any

Weight: 2.3 grams (approx)



Dim	Min	Max
A	9.65	10.67
B	2.54	3.43
C	5.84	6.86
D	14.22	15.88
E	12.70	14.73
F	—	4.06
G	—	1.0
H	—	1.80
I	0.51	1.14
J	4.83	5.33
K	3.56	4.83
L	1.14	1.40
M	2.50	3.39
N	0.30	0.64
O	Ø3.53	Ø4.09

All dimensions in mm

## Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
For Capacitive load derate current by 20%.

Parameter	Symbol	SBL 1030	SBL 1035	SBL 1040	SBL 1045	SBL 1050	SBL 1060	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 9.5 mm lead length (see fig.1)	IF(AV)				10			A
Peak forward surge current, single sine-wave superimposed on rated load (JEDEC Method)	IFSM				250			A
Typical thermal resistance	ReJA			3.0				°C/W
Typical junction capacitance	C <sub>j</sub>			700				pF
Operating junction temperature range	T <sub>J</sub>			-55 to + 125				°C
Storage temperature range	TSTG			-55 to + 150				°C

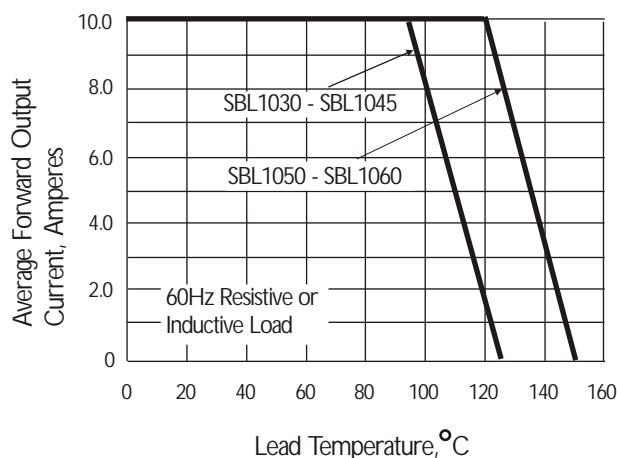
## Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
For Capacitive load derate by 20 %.

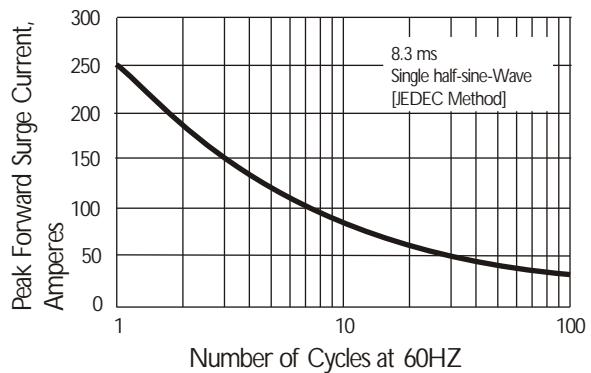
Parameter	Symbol	SBL 1030	SBL 1035	SBL 1040	SBL 1045	SBL 1050	SBL 1060	Unit
Maximum instantaneous forward voltage drop at 5.0A	VF		0.60			0.75		V
Maximum DC reverse current at rated TA = 25°C DC blocking voltage per element TA = 100°C	IR			1.0	50.0			mA

**Rating and Characteristic Curves** (  $T_A = 25^\circ\text{C}$  Unless otherwise noted )  
**SBL1030 thru SBL1060**

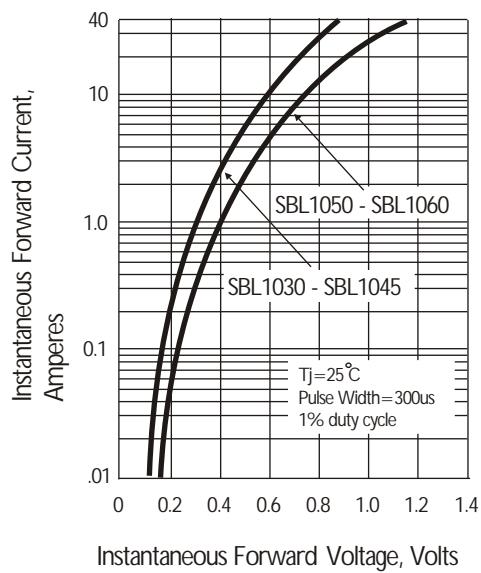
**Fig. 1 Forward Current Derating Curve**



**Fig. 2 Maximum Non-repetitive Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**

