

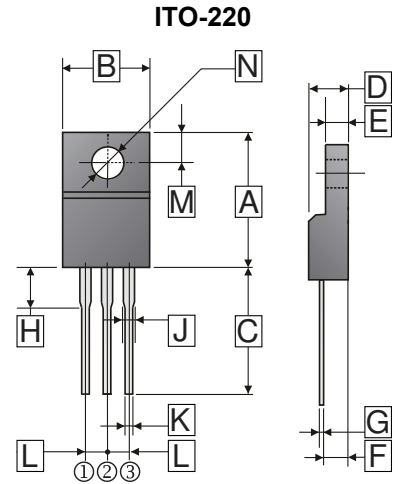
RoHS Compliant Product  
A suffix of "-C" specifies halogen free

**FEATURES**

- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability

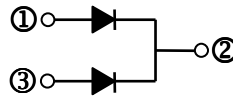
**MECHANICAL DATA**

- Case: ITO-220
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208



**ORDER INFORMATION**

Part Number	Type
SBL20D100F	Lead (Pb)-free
SBL20D100F-C	Lead (Pb)-free and Halogen-free



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.50	16.50	H	2.70	4.35
B	9.50	10.72	J	0.90	1.70
C	12.60	14.22	K	0.30	0.95
D	4.20	5.10	L	2.34	2.75
E	2.30	3.30	M	2.40	3.60
F	2.30	3.10	N	φ 3.0	φ 3.8
G	0.30	0.75			

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS** (T<sub>A</sub>=25°C unless otherwise noted)

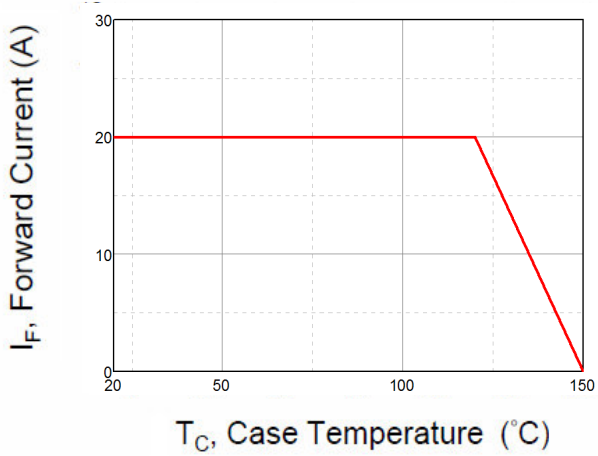
Parameter	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	V
Maximum Average Forward Rectified Current	(Per Leg)	10	A
	(Per Device)	20	
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150	A
Typical Junction Capacitance <sup>1</sup>	C <sub>J</sub>	620	pF
Typical Thermal Resistance	R <sub>θJC</sub>	4	°C /W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55~150	°C

**ELECTRICAL CHARACTERISTICS** (T<sub>A</sub>=25°C unless otherwise noted)

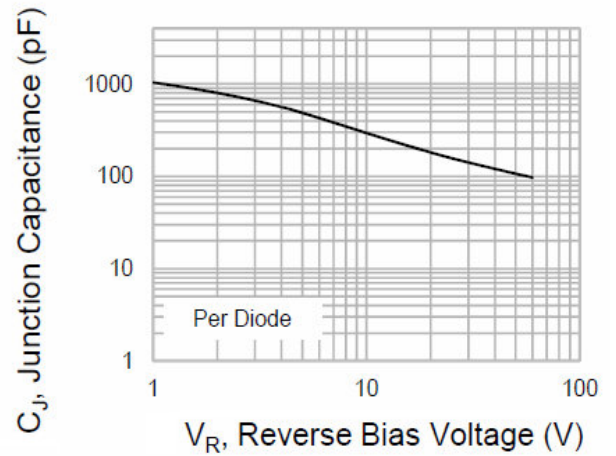
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Instantaneous Forward Voltage per diode	V <sub>F</sub>	0.47	-	V	I <sub>F</sub> =3A, T <sub>J</sub> =25°C
		0.53	-		I <sub>F</sub> =5A, T <sub>J</sub> =25°C
		0.67	0.75		I <sub>F</sub> =10A, T <sub>J</sub> =25°C
		0.61	-		I <sub>F</sub> =10A, T <sub>J</sub> =125°C
Reverse Current per diode	I <sub>R</sub>	5	-	μA	V <sub>R</sub> =70V
		-	50		V <sub>R</sub> =100V, T <sub>J</sub> =25°C
		7.2	-		mA

Note:  
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

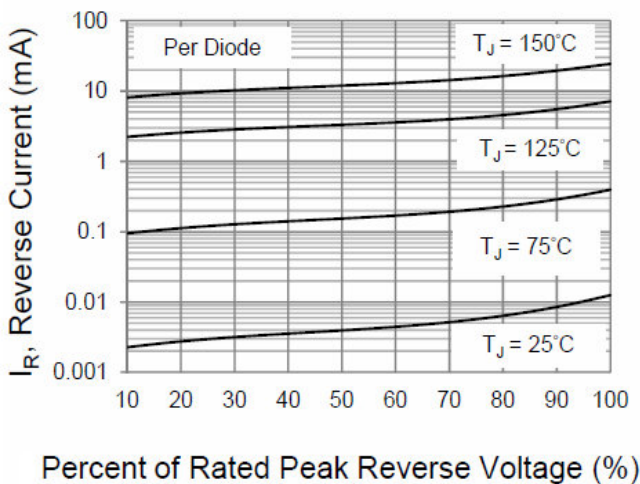
**RATINGS AND CHARACTERISTIC CURVES**



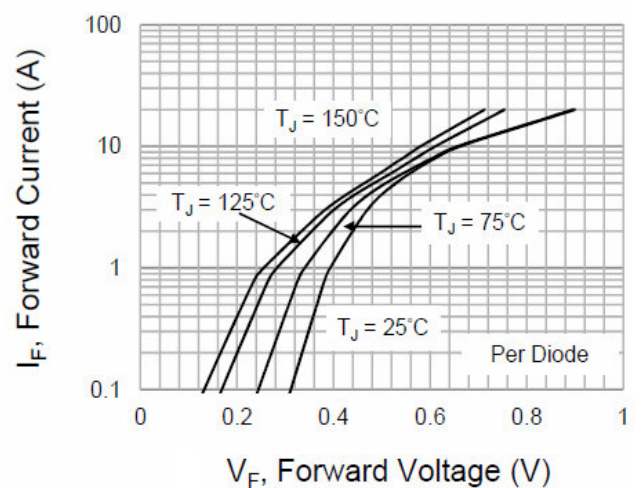
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**