Elektronische Bauelemente

SBL20A120F

120V, 20A

Low VF Trench Barrier Schottky Rectifier

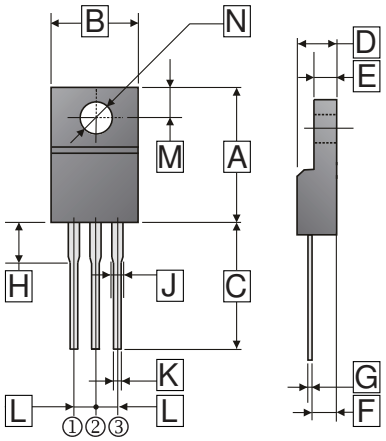
RoHS Compliant Product

A suffix of "-C" specifies halogen free

FEATURES

- Low forward voltage drop
- Low reverse current
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

ITO-220

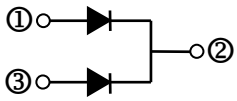


MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any

ORDER INFORMATION

Part Number	Type
SBL20A120F	Lead (Pb)-free
SBL20A120F-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

(Rating 25℃ ambient temperature unless otherwise s pecified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	120	V
Working Peak Reverse Voltage		V_{RSM}	120	V
Maximum DC Blocking Voltage		V_{DC}	120	V
Maximum Average Forward Rectified Current	(Per Leg)	I_F	10	A
	(Per Device)		20	
Peak Forward Surge Current@8.3 ms single half sine-wave Superimposed on rated load (JEDEC method		I_{FSM}	150	A
Typical Thermal Resistance		$R_{\theta JC}$	4	℃ /W
Operating and Storage Temperature Range		T_J,T_{STG}	-55~150	℃

ELECTRICAL CHARACTERISTICS

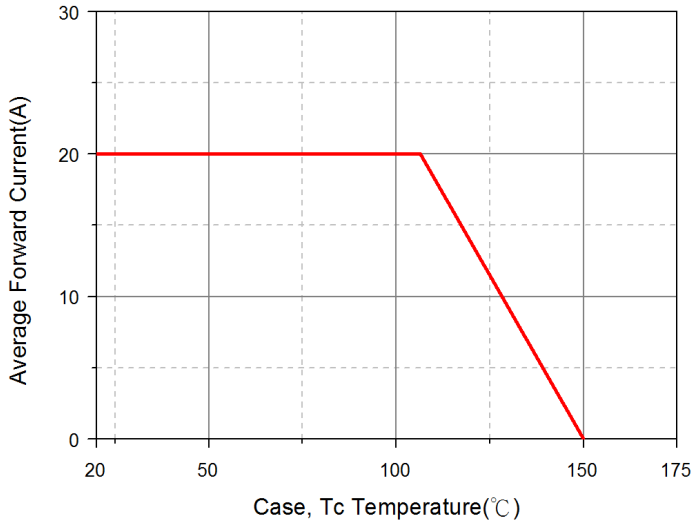
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.56	-	V	I_F=3A, T_J=25℃
		0.66	-		I_F=5A, T_J=25℃
		0.88	0.96		I_F=10A, T_J=25℃
		0.66	-		I_F=10A, T_J=125℃
Maximum DC Reverse Current at Rated DC Blocking Voltage [2]	I_R	0.003	0.1	mA	T_J=25℃
		0.9	20		T_J=100℃
Typical Junction Capacitance [1]	C_J	285	-	pF	

Notes:

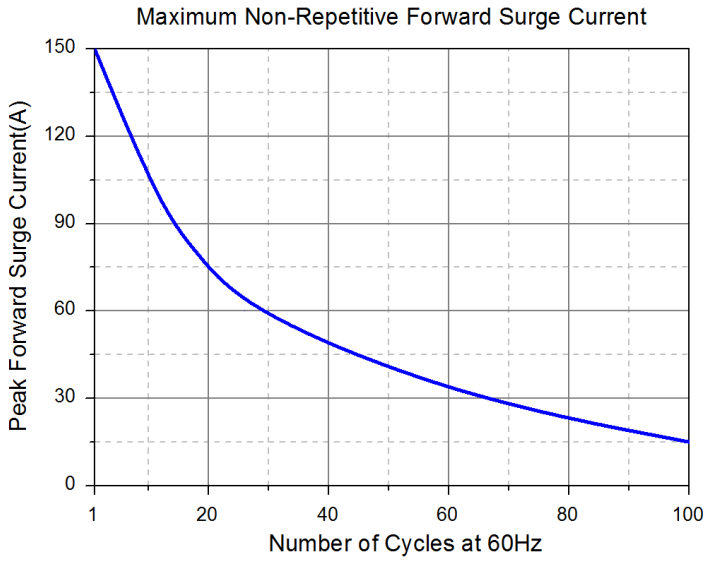
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Pulse Test: Pulse Width=300μs, Duty Cycle ≦ 2.0%.

RATINGS AND CHARACTERISTIC CURVES

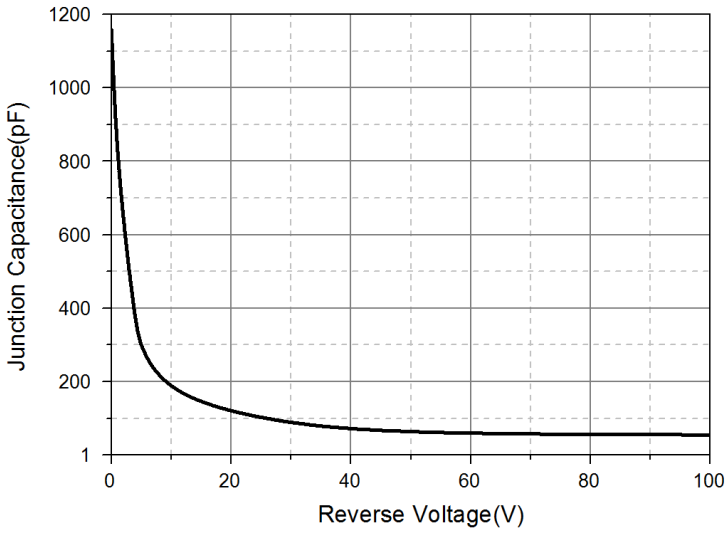
Typical Forward Current Derating Curve



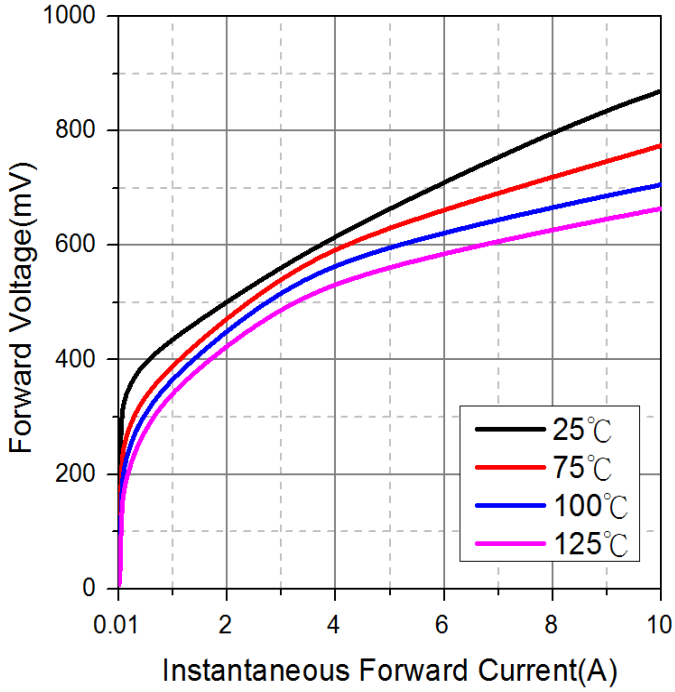
Maximum Non-Repetitive Forward Surge Current



Typical Junction Capacitance



Typical Forward Characteristic



Typical Reverse Characteristic