

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

FEATURES

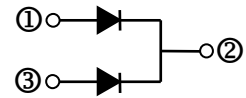
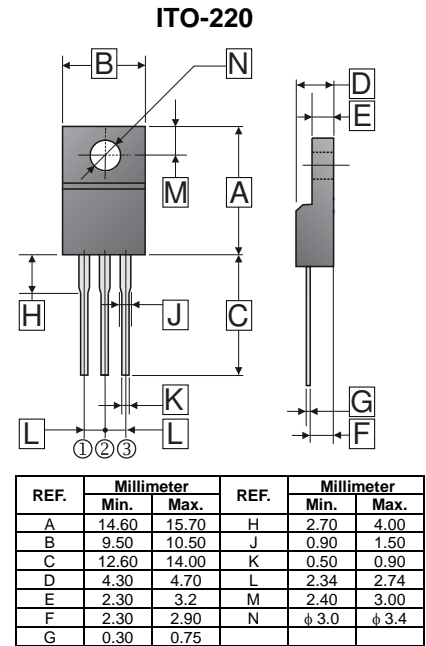
- Trench Barrier Schottky technology
- Low forward voltage drop
- Low reverse current
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

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
SBL30U120F	Lead (Pb)-free
SBL30U120F-C	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. 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	I_F	(Per Leg) 15	A
		(Per Device) 30	
Peak Forward Surge Current@ 8.3 ms single half sine-wave	I_{FSM}	200	A
Voltage Rate of Change (Rated V_R)	dv/dt	10000	V / μs
Typical Thermal Resistance from Junction to Case	$R_{\theta JC}$	4	°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-40~150	°C

ELECTRICAL CHARACTERISTICS

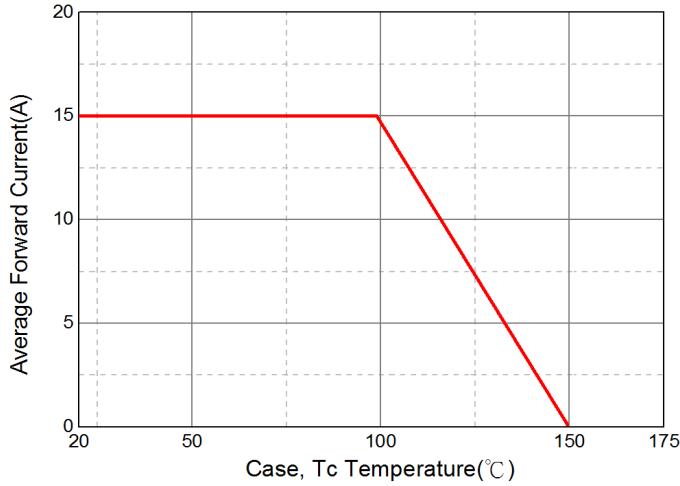
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.49	0.52	V	$I_F=3A, T_J=25^\circ C$
		0.55	0.58		$I_F=5A, T_J=25^\circ C$
		0.8	0.9		$I_F=15A, T_J=25^\circ C$
		0.65	-		$I_F=15A, T_J=125^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage ²	I_R	-	0.1	mA	$T_J=25^\circ C$
		-	20		$T_J=100^\circ C$
Typical Junction Capacitance ¹	C_J	470	-	pF	

Notes:

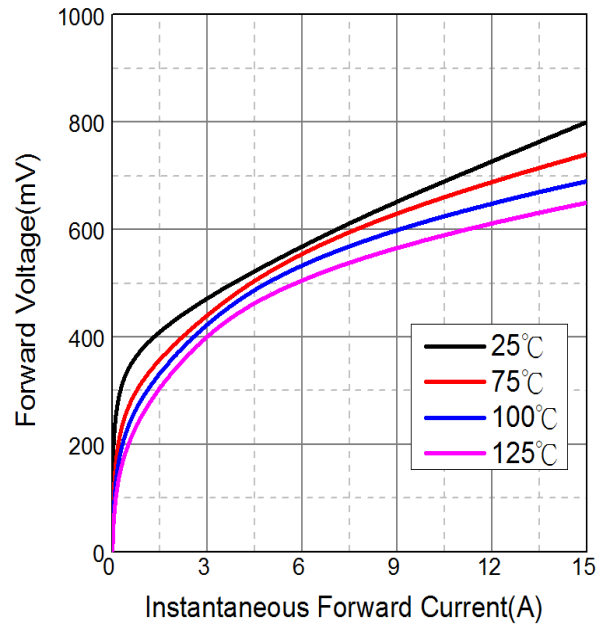
1. Measured at 1MHz and applied with 5.0V D.C reverse voltage.
2. Pulse Test : Pulse Width=300 μs , duty cycle \leq 2.0%.

RATINGS AND CHARACTERISTIC CURVES

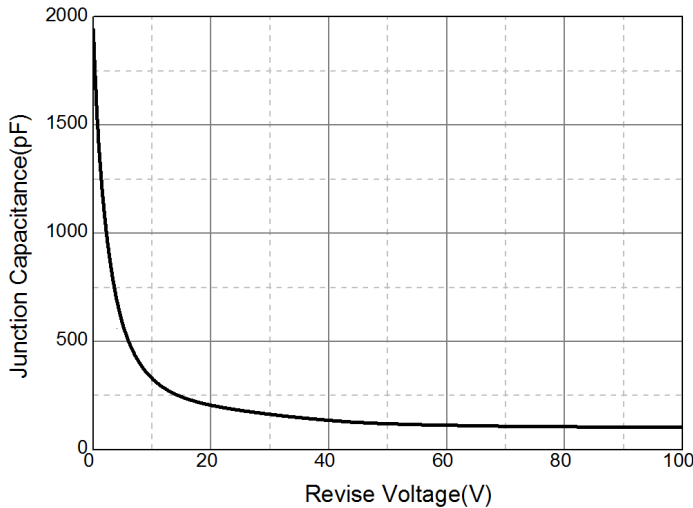
Typical Forward Current Derating Curve



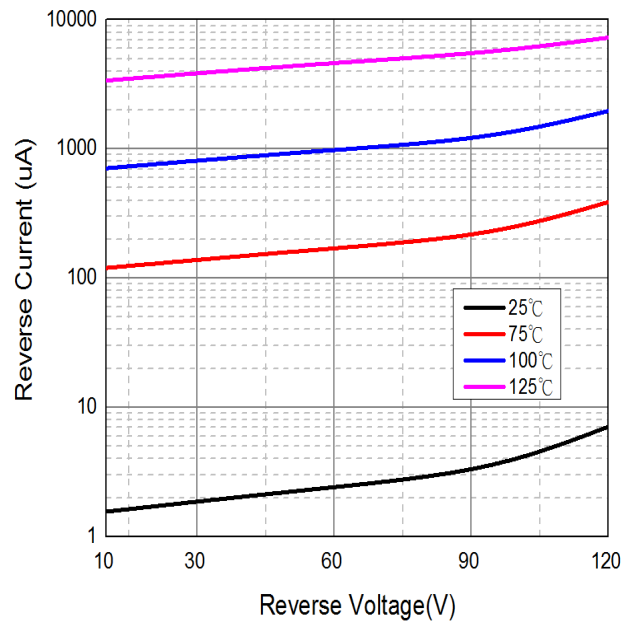
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

