

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

FEATURES

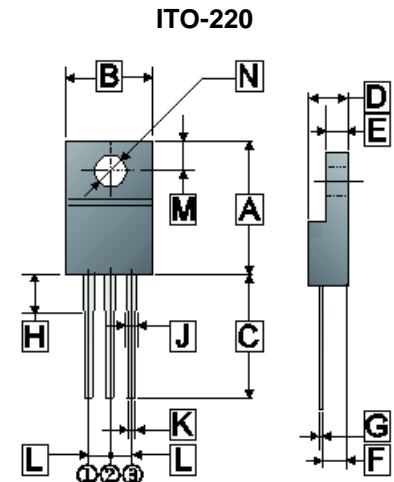
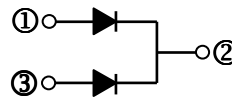
- Trench Barrier Schottky technology
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

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
SBL30U80F	Lead (Pb)-free
SBL30U80F-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°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}	80	V
Maximum RMS Voltage	V_{RMS}	56	V
Maximum DC Blocking Voltage	V_{DC}	80	V
Maximum Average Forward Rectified Current	I_F	15 30	A
Peak Forward Surge Current@ 8.3 ms single half sine-wave superimposed on rated load Superimposed on rated load (JEDEC method)	I_{FSM}	200	A
Typical Thermal Resistance from Junction to Case	$R_{\theta JC}$	4	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	150, -40~150	°C

ELECTRICAL CHARACTERISTICS

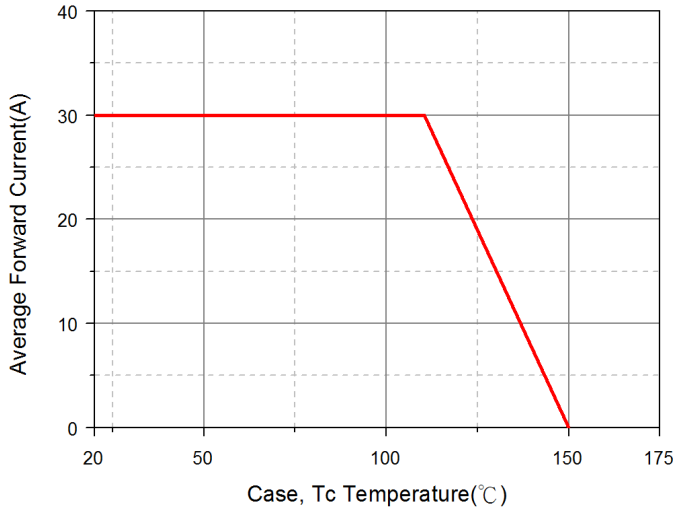
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Instantaneous Forward Voltage	V_F	0.42	-	V	$I_F=3A, T_A=25^\circ C$
		0.53	-		$I_F=10A, T_A=25^\circ C$
		0.6	0.65		$I_F=15A, T_A=25^\circ C$
		0.59	-		$I_F=15A, T_A=100^\circ C$
DC Reverse Current at Rated DC Blocking Voltage ¹	I_R	-	0.2	mA	$T_A=25^\circ C$
		-	10		$T_A=100^\circ C$
Junction Capacitance ²	C_J	950	-	pF	

Notes:

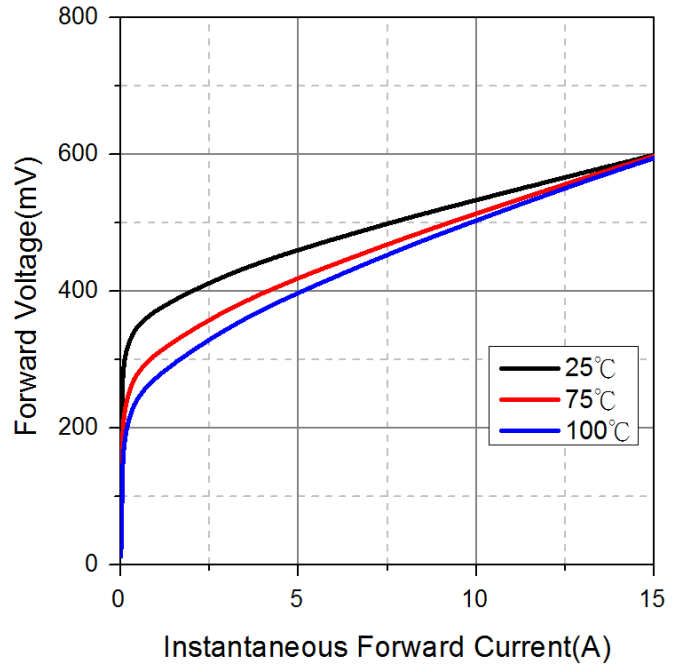
1. Pulse Test : Pulse Width=300µs, Duty Cycle≤2.0%.
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

CHARACTERISTIC CURVES

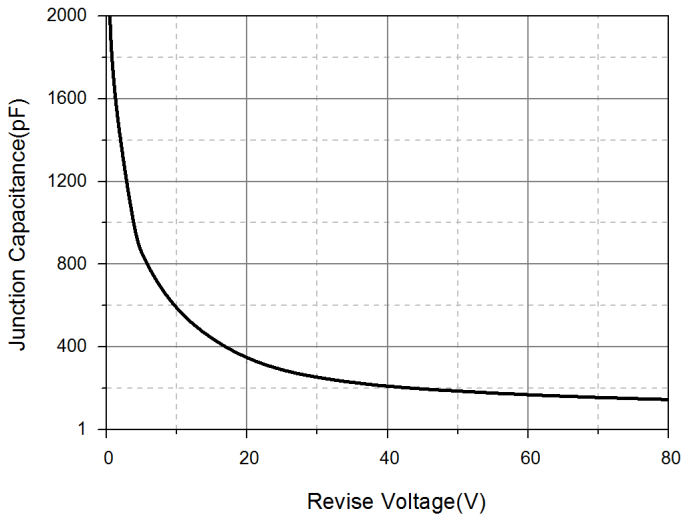
Typical Forward Current Derating Curve



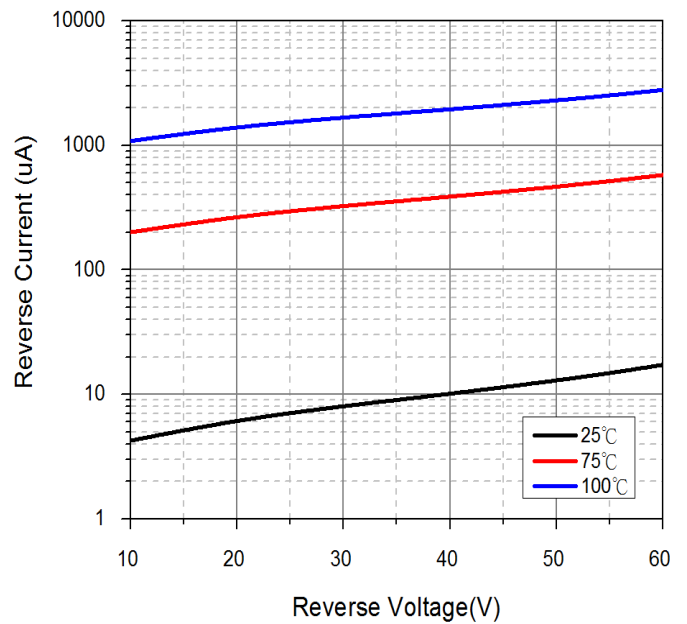
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

