

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

FEATURES

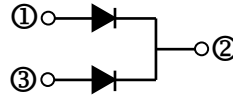
- Trench Barrier Schottky technology
- Low Forward Voltage Drop
- Low Reverse Current
- High Current Capability
- High Reliability
- High Surge Current Capability
- Epitaxial Construction

MECHANICAL DATA

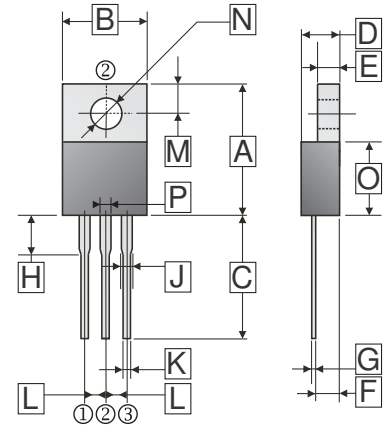
- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any

ORDER INFORMATION

Part Number	Type
SBL20A100	Lead (Pb)-free
SBL20A100-C	Lead (Pb)-free and Halogen-free



TO-220



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.22	16.51	J	0.7	1.78
B	9.65	10.67	K	0.38	1.02
C	12.50	14.75	L	2.39	2.69
D	3.56	4.90	M	2.50	3.43
E	0.51	1.45	N	3.10	4.09
F	2.03	2.92	O	8.38	9.65
G	0.31	0.76	P	0.89	1.45
H	3.5	4.5			

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}	100	V
Working Peak Reverse Voltage	V_{RSM}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	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 (JEDEC method)	I_{FSM}	120	A
Voltage Rate of Change (Rated V_R)	dv/dt	10000	V / μ s
Typical Thermal Resistance	$R_{\theta JC}$	2	°C /W
Operating and Storage Temperature Range	T_J, T_{STG}	-40~150	°C

ELECTRICAL CHARACTERISTICS

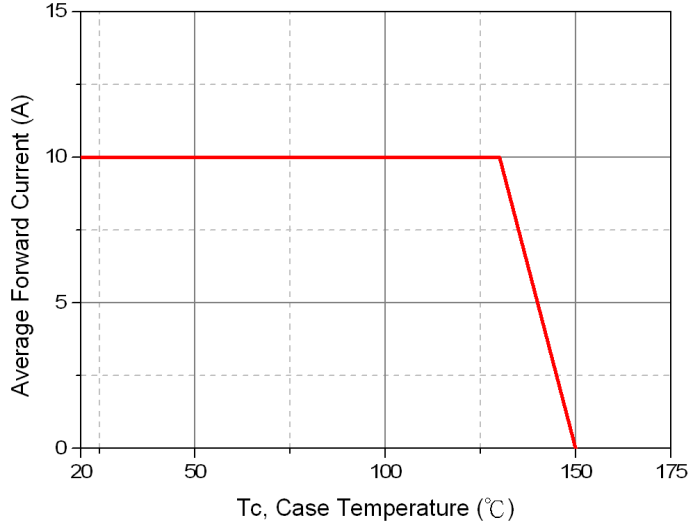
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.57	0.64	V	$I_F=3A, T_J=25^\circ C$
		0.69	0.74		$I_F=5A, T_J=25^\circ C$
		0.79	0.84		$I_F=10A, T_J=25^\circ C$
		0.7	-		$I_F=10A, T_J=125^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage ²	I_R	-	0.2	mA	$T_J=25^\circ C$
		-	10		$T_J=100^\circ C$
Typical Junction Capacitance ¹	C_J	160	-	pF	

Notes:

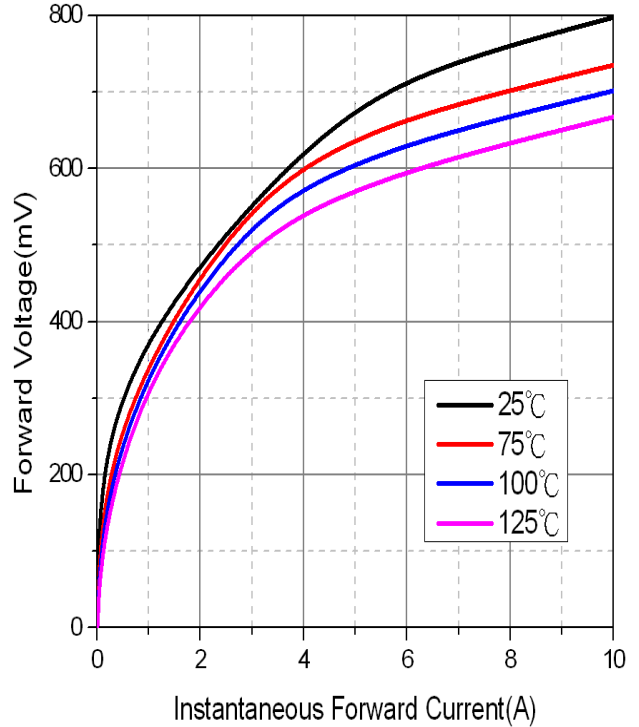
1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%.

RATINGS AND CHARACTERISTIC CURVES

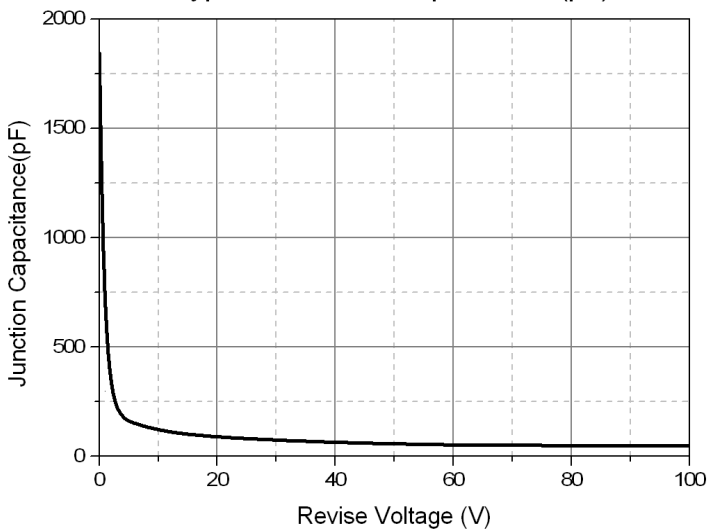
Typical Forward Current Derating Curve



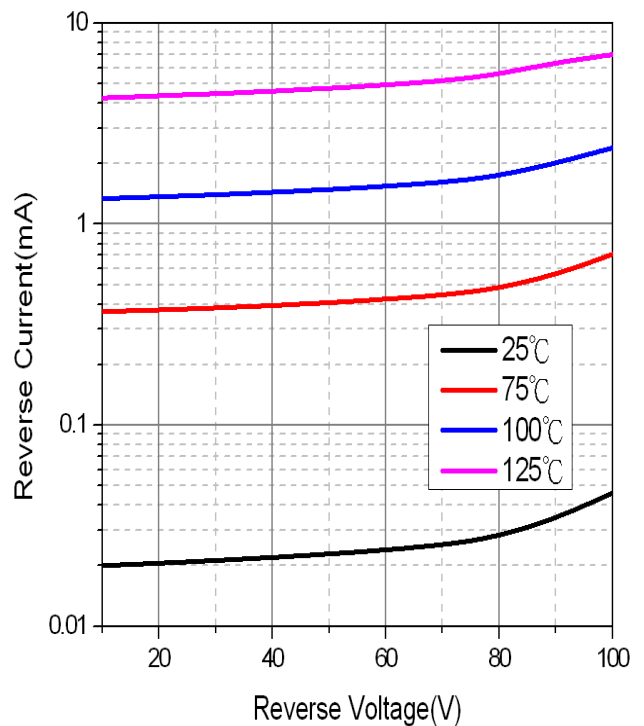
Typical Forward Characteristic



Typical Junction Capacitance(pF)



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

