

RoHS Compliant Product

A suffix of "-C" specifies halogen free

FEATURES

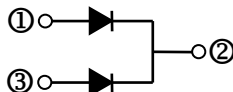
- Planar MOS Schottky technology
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

MECHANICAL DATA

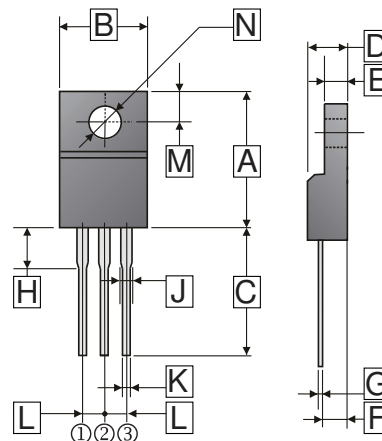
- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any

ORDER INFORMATION

Part Number	Type
SBL40U60F	Lead (Pb)-free
SBL40U60F-C	Lead (Pb)-free and Halogen-free



ITO-220



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.60	15.70	H	2.70	4.00
B	9.50	10.50	J	0.90	1.50
C	12.60	14.00	K	0.50	0.90
D	4.30	4.70	L	2.34	2.74
E	2.30	3.2	M	2.40	3.00
F	2.30	2.90	N	φ 3.0	φ 3.4
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}	60	V
Working Peak Reverse Voltage	V_{RSM}	60	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Rectified Current	(Per Leg)	20	A
	(Per Device)	40	
Peak Forward Surge Current@ 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method)	I_{FSM}	280	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 and Storage Temperature Range	T_J, T_{STG}	-40~150	°C

ELECTRICAL CHARACTERISTICS

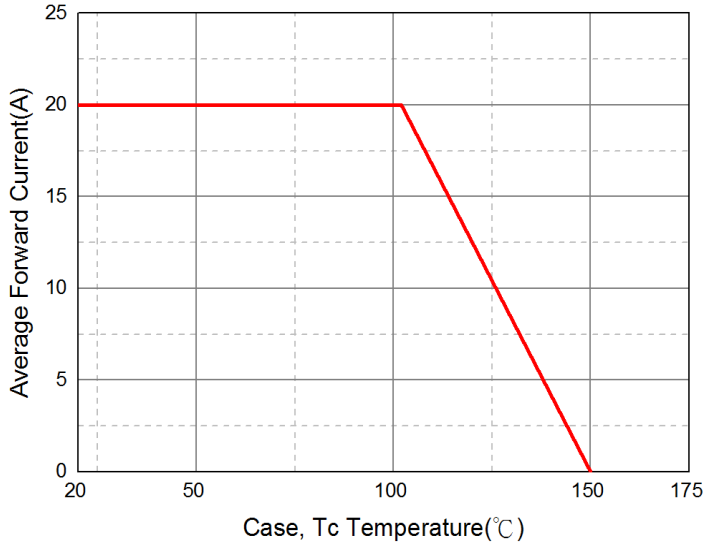
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.35	0.39	V	$I_F=3A, T_J=25^\circ C$
		0.38	0.42		$I_F=5A, T_J=25^\circ C$
		0.56	0.62		$I_F=20A, T_J=25^\circ C$
		0.53	-		$I_F=20A, T_J=125^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage ²	I_R	-	0.5	mA	$T_J=25^\circ C$
		-	30		$T_J=100^\circ C$
Typical Junction Capacitance ¹	C_J	600	-	pF	

Notes:

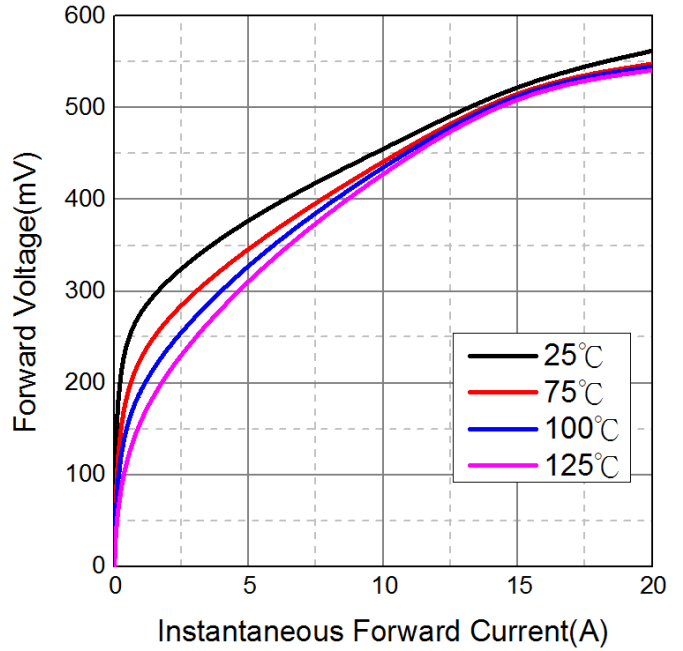
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Pulse Test: Pulse width=300 μs , duty cycle $\leq 2.0\%$.

RATINGS AND CHARACTERISTIC CURVES

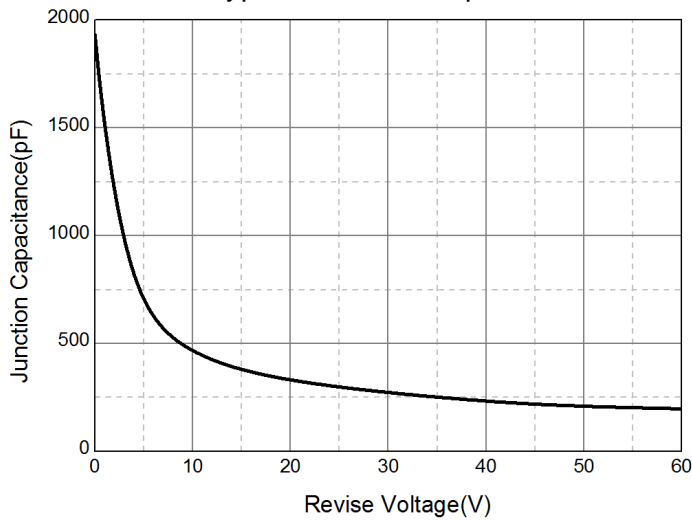
Typical Forward Current Derating Curve



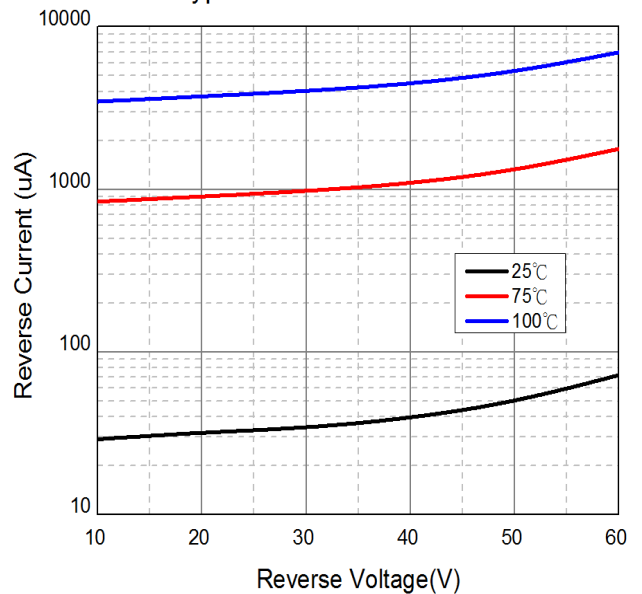
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

