

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

FEATURES

- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- Trench Barrier Schottky Technology
- Fast Switching Capability
- High Reliability
- High Surge Current Capability
- Epitaxial Construction

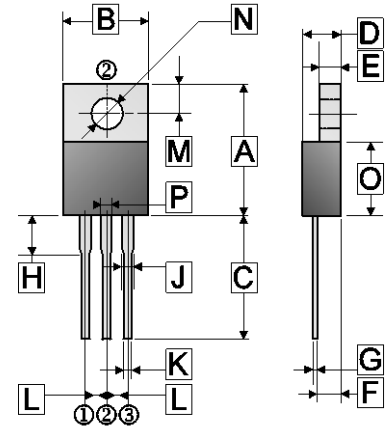
MECHANICAL DATA

- Case: TO-220
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Epoxy: UL94V-0 Rate Flame Retardant
- Terminals: Matte Tin Finish annealed over Copper Leadframe Solderable per MIL-STD-202, Method 208
- Polarity: As Marked
- Mounting position: Any

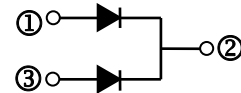
ORDER INFORMATION

Part Number	Type
SBL10U150	Lead (Pb)-free
SBL10U150-C	Lead (Pb)-free and Halogen-free

TO-220



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.22	16.51	J	0.70	1.78
B	9.57	10.90	K	0.38	1.11
C	12.50	14.75	L	2.01	3.07
D	3.56	5.10	M	2.22	3.43
E	0.51	1.47	N	3.10	4.31
F	2.03	3.19	O	8.10	9.65
G	0.279	0.76	P	1.18 TYP.	
H	2.95	4.5			



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	150	V
Working Peak Reverse Voltage	V_{RSM}	150	
Maximum DC Blocking Voltage	V_{DC}	150	
Maximum Average Forward Rectified Current	(Per Leg)	5	A
	(Per Device)	10	
Peak Forward Surge Current, 8.3ms single half sine-wave Superimposed on rated load (JEDEC method)	I_{FSM}	80	A
Typical Thermal Resistance	$R_{\theta JC}$	2	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-40~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

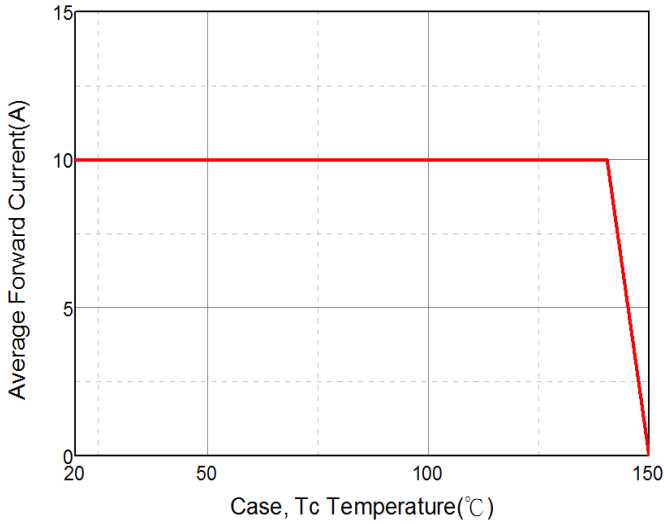
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Instantaneous Forward Voltage	V_F	0.75	-	V	$I_F=3\text{A}, T_J=25^\circ\text{C}$
		0.82	0.95		$I_F=5\text{A}, T_J=25^\circ\text{C}$
		0.66	-		$I_F=5\text{A}, T_J=125^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage ¹	I_R	0.4	-	uA	$V_R=100\text{V}, T_J=25^\circ\text{C}$
		-	30		$V_R=150\text{V}, T_J=25^\circ\text{C}$
		1	15		$V_R=150\text{V}, T_J=125^\circ\text{C}$
Junction Capacitance ²	C_J	125	-	pF	

Notes:

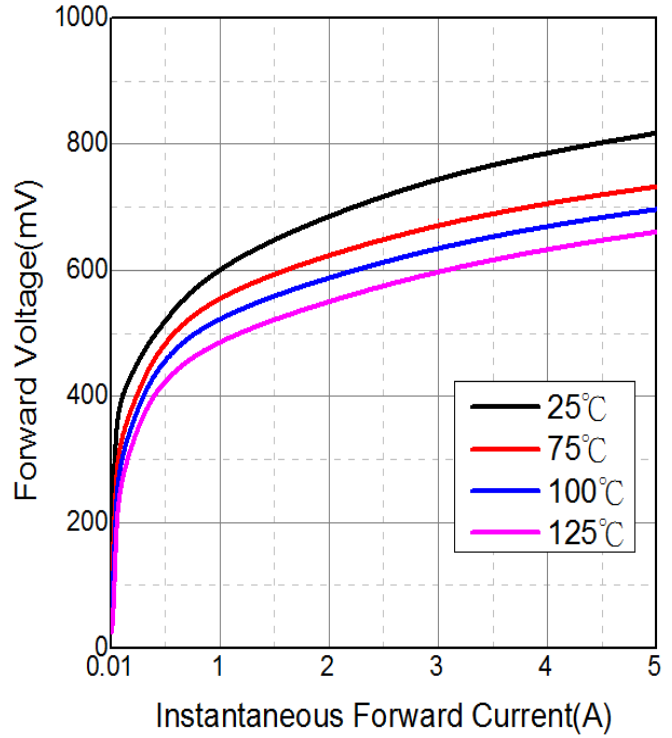
1. Pulse Test: Pulse Width=300us, Duty Cycle \leq 2%.
2. Measured at 1MHz and applied reverse voltage of 4V D.C.

RATINGS AND CHARACTERISTIC CURVES

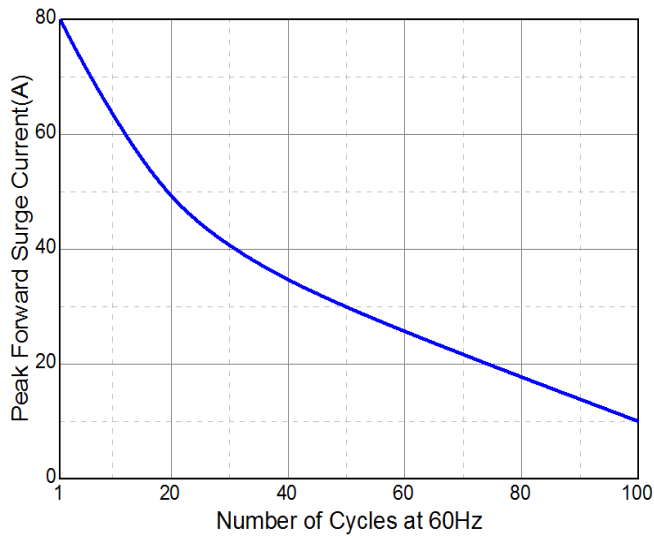
Typical Forward Current Derating Curve



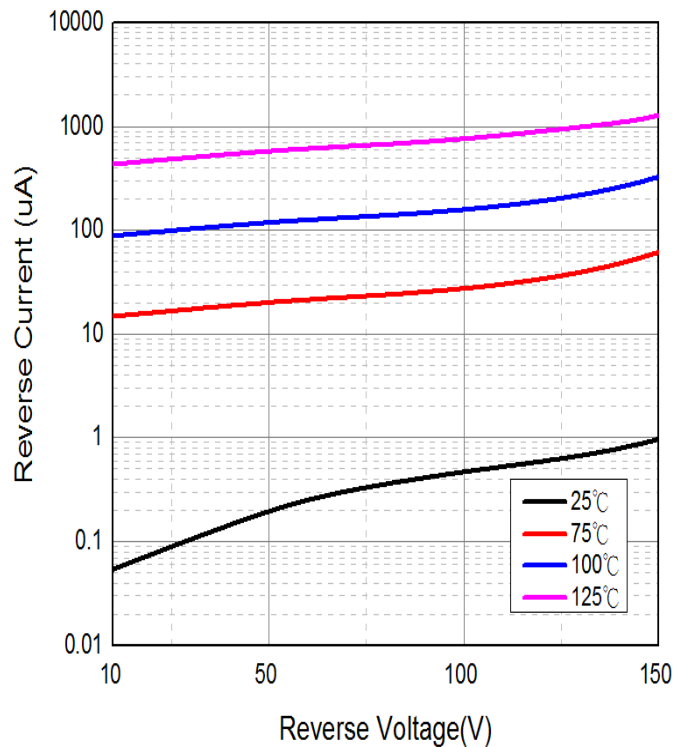
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

