

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

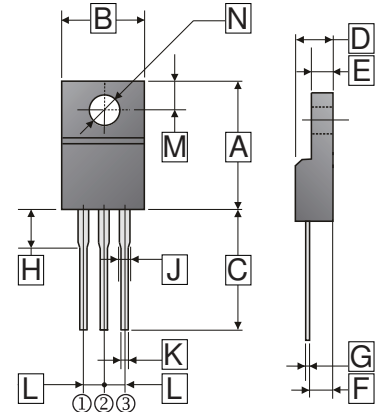
MECHANICAL DATA

- 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

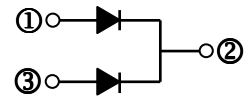
ORDER INFORMATION

Part Number	Type
SBL10U45F	Lead (Pb)-free
SBL10U45F-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}	45	V
Working Peak Reverse Voltage		V_{RSM}	45	V
Maximum DC Blocking Voltage		V_{DC}	45	V
Maximum Average Forward Rectified Current	(Per Leg)	I_F	5	A
	(Per Device)		10	
Peak Forward Surge Current, 8.3 ms 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		$R_{\theta JC}$	4	°C / W
Operating and Storage Temperature Range		T_J, T_{STG}	-40~150	°C

ELECTRICAL CHARACTERISTICS

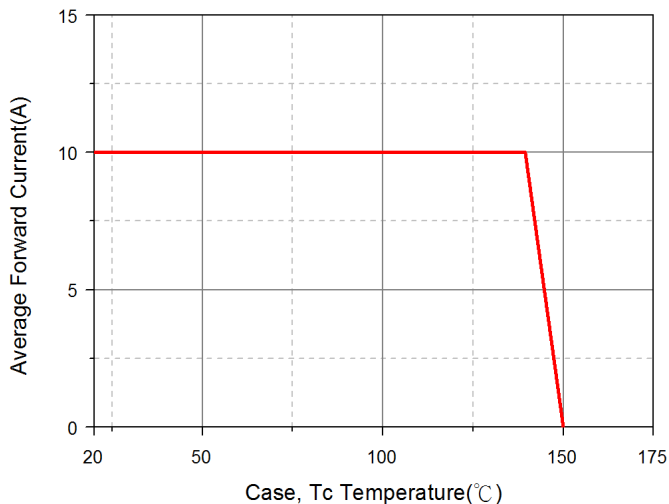
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.38	-	V	$I_F=3A, T_J=25^\circ C$
		0.42	0.48		$I_F=5A, T_J=25^\circ C$
		0.31	-		$I_F=3A, T_J=125^\circ C$
		0.38	-		$I_F=5A, T_J=125^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage ²	I_R	-	0.5	mA	$T_J=25^\circ C$
		-	20		$T_J=100^\circ C$
Typical Junction Capacitance ¹	C_J	320	-	pF	

Notes:

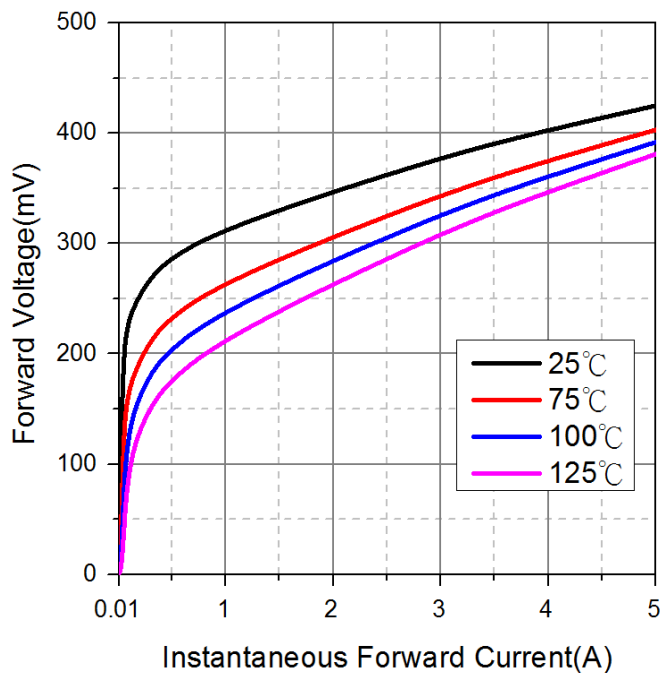
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Pulse Test : Pulse Width = 300 μ s, Duty Cycle \leq 2.0%.

RATING AND CHARACTERISTIC CURVES

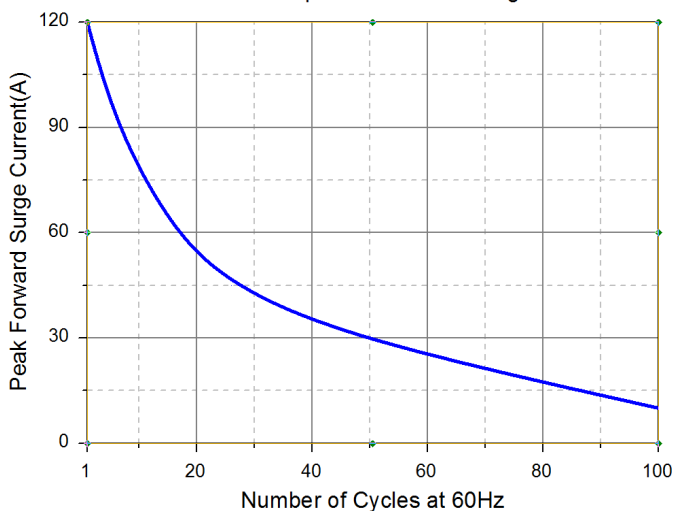
Typical Forward Current Derating Curve



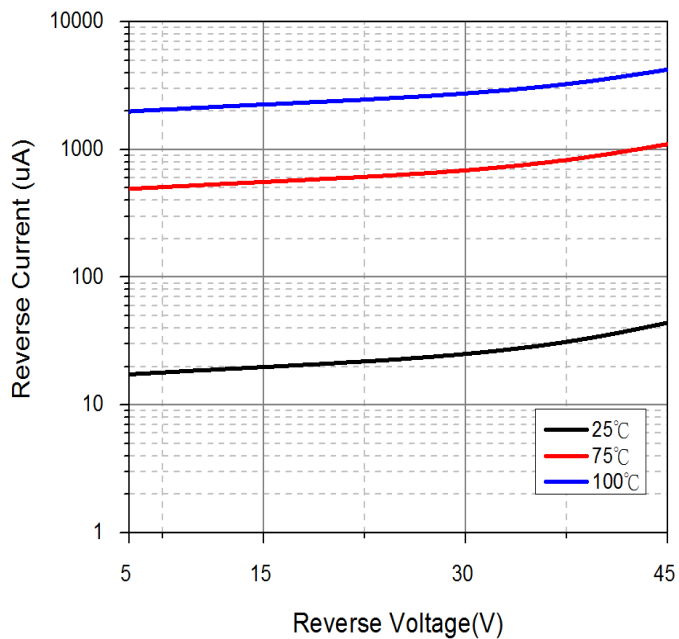
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

