Elektronische Bauelemente

SBL30A45F

Voltage 45V, 30A

Low VF Planar MOS Barrier Schottky Rectifier

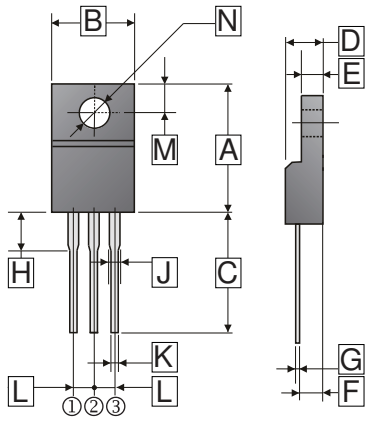
RoHS Compliant Product

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

ITO-220



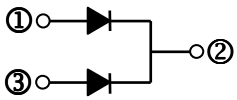
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.50	16.50	H	2.70	4.35
B	9.50	10.72	J	0.90	1.70
C	12.60	14.22	K	0.30	0.95
D	4.20	5.10	L	2.34	2.75
E	2.30	3.30	M	2.40	3.60
F	2.30	3.10	N	ϕ3.0	ϕ3.8
G	0.30	0.75			

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
SBL30A45F	Lead (Pb)-free
SBL30A45F-C	Lead (Pb)-free and Halogen-free



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	Ratings	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	15	A
	Per Device		30	
Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method)		I_{FSM}	150	A
Voltage Rate of Chance (Rated V_R)		dv/dt	10000	V/μs
Typical Thermal Resistance		$R_{\theta JC}$	4	°C/W
Operating and Storage Temperature Range		T_J,T_{STG}	-55~150	°C

ELECTRICAL CHARACTERISTICS

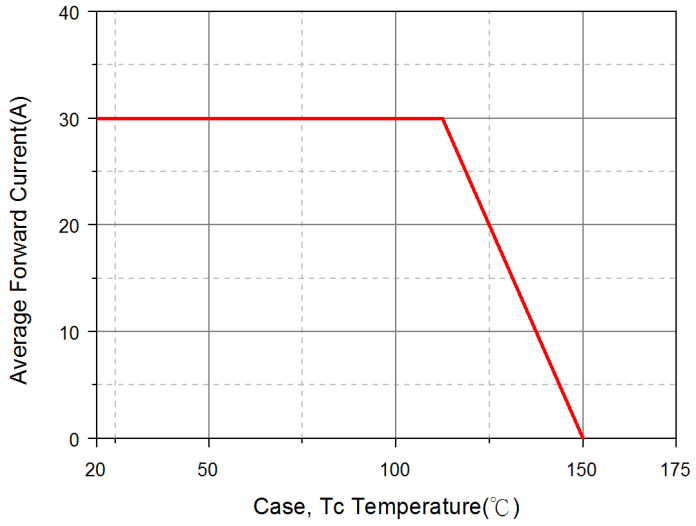
Parameter	Symbol	Typ.	Max.	Unit	Test Conditions
Maximum Instantaneous Forward Voltage	V_F	0.34	0.37	V	I_F=3A, T_J=25°C
		0.38	0.42		I_F=5A, T_J=25°C
		0.46	0.48		I_F=10A, T_J=25°C
		0.54	0.57		I_F=15A, T_J=25°C
		0.53	-		I_F=15A, T_J=125°C
Maximum DC Reverse Current @Rated DC Blocking Voltage [2]	I_R	-	0.5	mA	T_J=25°C
		-	20		T_J=100°C
Typical Junction Capacitance [1]	C_J	420	-	pF	

Notes:

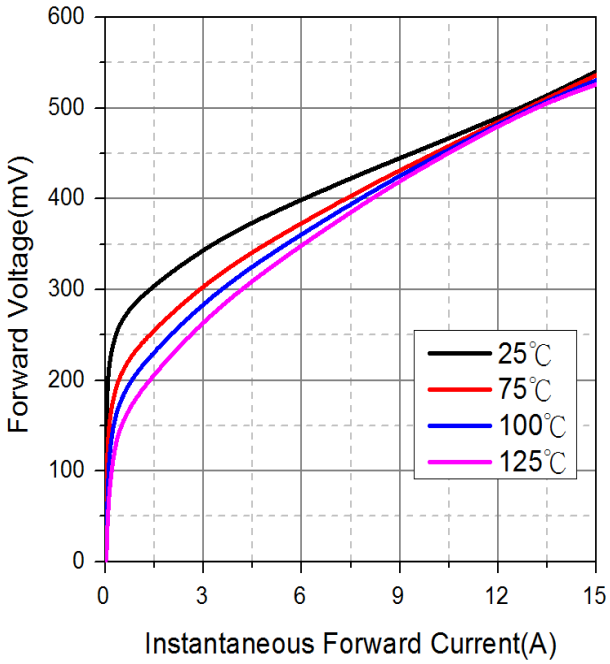
1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Pulse Test: Pulse Width=300μs, Duty Cycle≦2%.

RATINGS AND CHARACTERISTIC CURVES

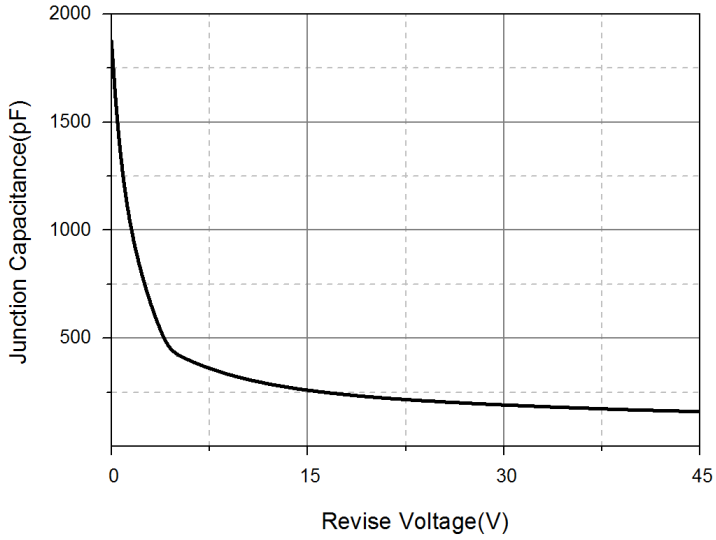
Typical Forward Current Derating Curve



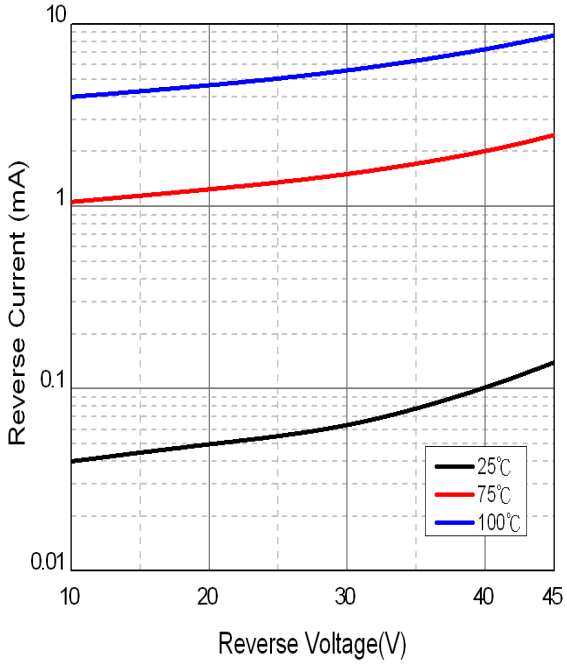
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

