SBL30U100F
Voltage 100V 30.0 Amp
Low VF Trench Barrier Schottky Rectifier

SECOS
Elektronische Bauelemente

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

ITO-220

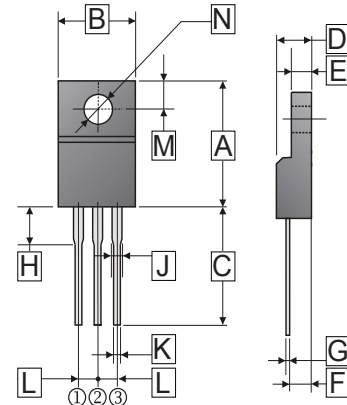| REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	14.60	15.70	H	2.70	3.80
B	9.50	10.50	J	0.90	1.50
C	12.60	14.00	K	0.50	0.90
D	4.30	4.70	L	2.34	2.74
E	2.30	3.2	M	2.40	3.00
F	2.30	2.80	N	φ 3.0	φ 3.4
G	0.30	0.70			

FEATURES

- Trench Barrier Schottky technology
- Low forward voltage drop, low power losses.
- 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
- Weight: 1.98 g (Approximate)

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)	I_F	15	A
	(Per Device)		30	
Peak Forward Surge Current, 8.3 ms single half sine-wave		I_{FSM}	200	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}	-40~150	°C

ELECTRICAL CHARACTERISTICS

| Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.45	0.48	V	I_F = 3A, T_J = 25°C
		0.61	0.64		I_F = 10A, T_J = 25°C
		0.71	0.74		I_F = 15 A, T_J = 25°C
		0.66	-		I_F = 15 A, T_J = 125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage [2]	I_R	-	0.15	mA	T_J=25°C
		-	10		T_J=100°C
Typical Junction Capacitance [1]	C_J	630	-	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%.

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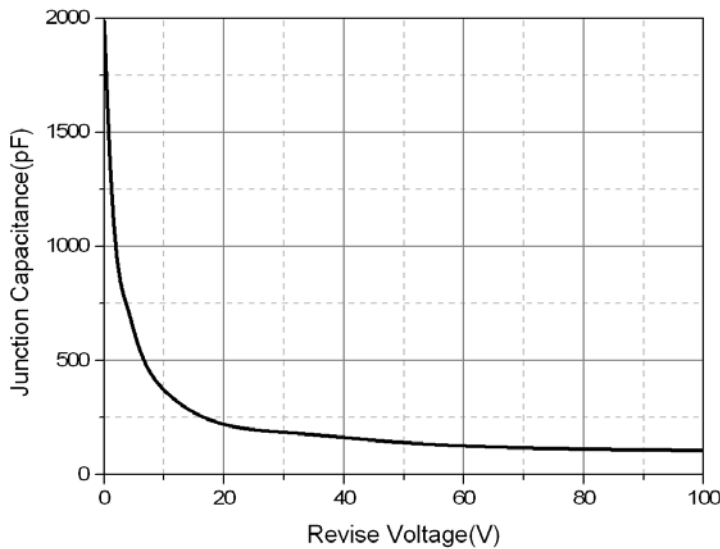
RATINGS AND CHARACTERISTIC CURVES
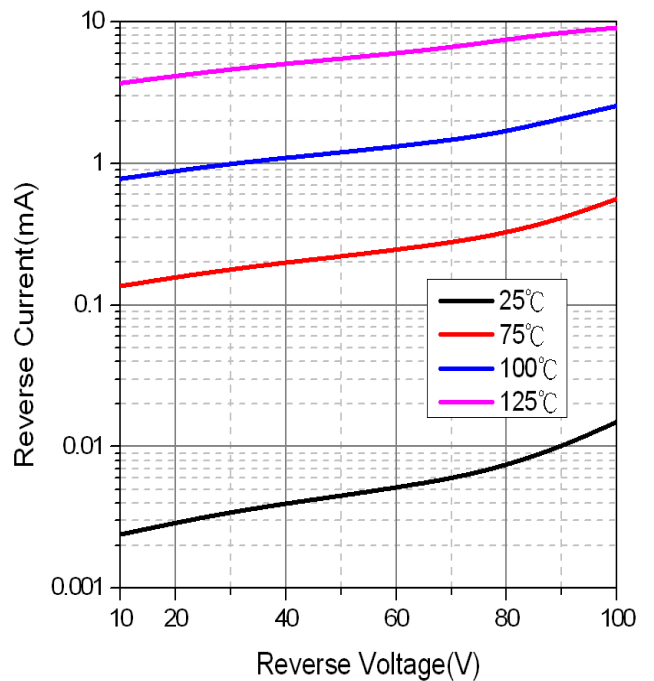
Typical Forward Current Derating Curve
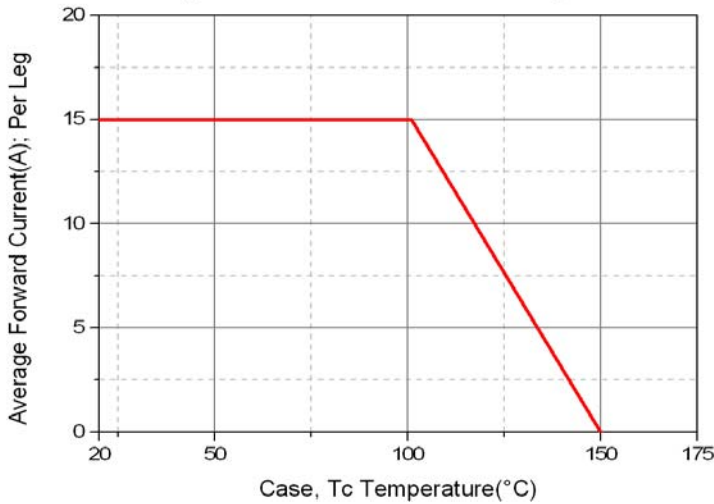
Typical Forward Characteristic
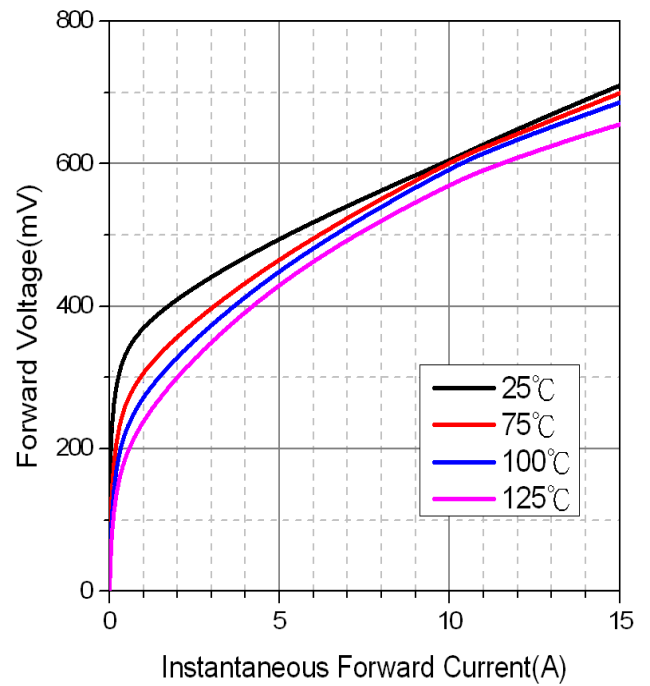
Typical Junction Capacitance

Typical Reverse Characteristic

Maximum Non-Repetitive Forward Surge Current