SeCoS
Elektronische Bauelemente

SBL30U120
30A, 120V
## Low VF Trench Barrier Schottky Rectifier

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

FEATURES

- Trench Barrier Schottky technology
- Low forward voltage drop
- Low reverse current
- 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

TO-220
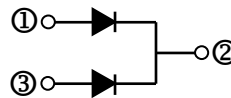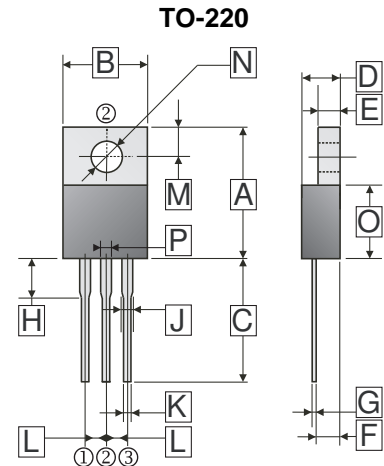
REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	14.22	16.51	J	0.7	1.78
B	9.65	10.67	K	0.38	1.02
C	12.50	14.75	L	2.39	2.69
D	3.56	4.90	M	2.50	3.43
E	0.51	1.45	N	3.10	4.09
F	2.03	2.92	O	8.38	9.65
G	0.31	0.76	P	0.89	1.45
H	3.5	4.5			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25℃ ambient temperature unless otherwise s pecified. 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}	120	V
Working Peak Reverse Voltage		V_{RSM}	120	V
Maximum DC Blocking Voltage		V_{DC}	120	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 from Junction to Case		$R_{θJC}$	2	℃ /W
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-40~150	℃

ELECTRICAL CHARACTERISTICS

| Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.49	0.52	V	I_F=3A, T_J=25℃
		0.55	0.58		I_F=5A, T_J=25℃
		0.8	0.9		I_F=15 A, T_J=25℃
		0.65	-		I_F=15 A, T_J=125℃
Maximum DC Reverse Current at Rated DC Blocking Voltage [2]	I_R	-	0.1	mA	T_J=25℃
		-	20		T_J=100℃
Typical Junction Capacitance [1]	C_J	470	-	pF	

Notes:
1. Measured at 1MHz and applied with 5.0V D.C reverse voltage.
2. Pulse Test：Pulse Width=300μs, duty cycle≦2.0%.

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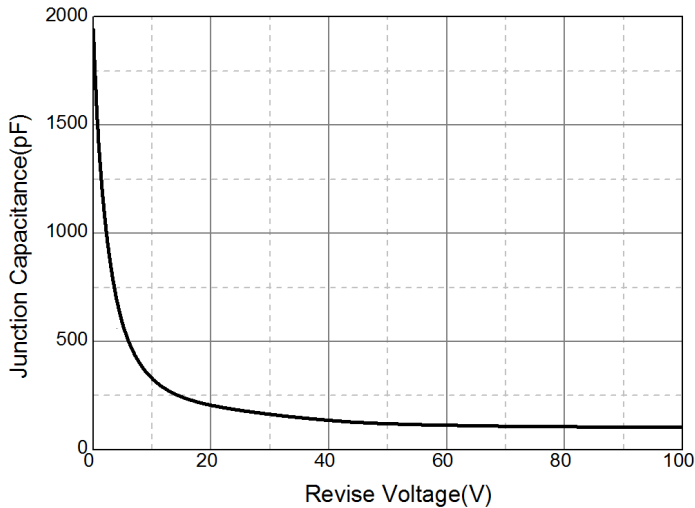# RATINGS AND CHARACTERISTIC CURVES

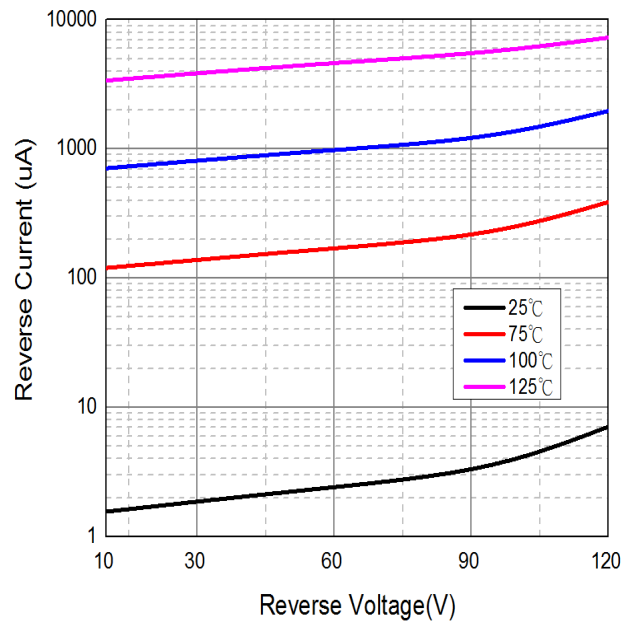Typical Forward Current Derating Curve
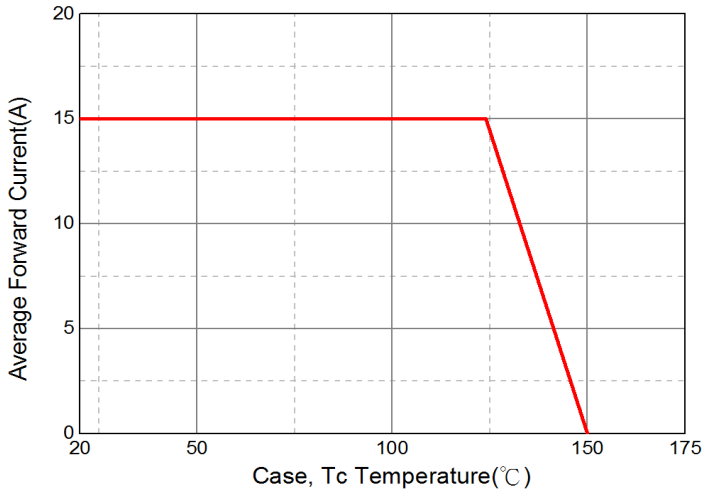
Typical Forward Characteristic
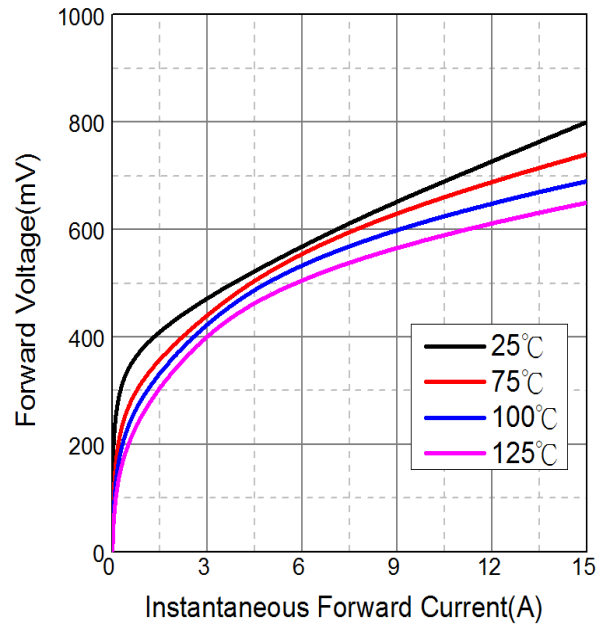
Typical Junction Capacitance

Typical Reverse Characteristic

Maximum Non-Repetitive Forward Surge Current