Elektronische Bauelemente

SBL20A60D1

Voltage 60V, 20Amp

Low VF Planar MOS Barrier Schottky Rectifier

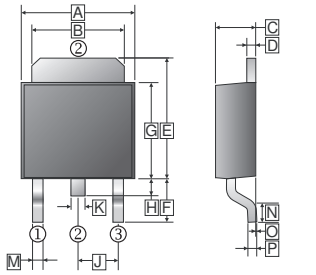
RoHS Compliant Product

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

TO-252



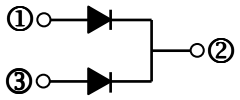
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.35	6.90	J	2.30 REF.	
B	4.95	5.50	K	0.64	1.14
C	2.10	2.50	M	0.50	1.14
D	0.43	0.9	N	1.3	1.8
E	6.0	7.5	O	0	0.13
F	2.80 REF		P	0.58REF.	
G	5.40	6.40			
H	0.60	1.20			

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
SBL20A60D1	Lead (Pb)-free
SBL20A60D1-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	Rating	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	60	V
Working Peak Reverse Voltage		V_{RSM}	60	V
Maximum DC Blocking Voltage		V_{DC}	60	V
Maximum Average Forward Rectified Current	(Per Leg)	I_F	10	A
	(Per Device)		20	
Peak Forward Surge Current, 8.3 ms single half sine-wave		I_{FSM}	120	A
Voltage Rate of Chance (Rated V_R)		dv/dt	10000	V / μs
Typical Thermal Resistance [3]		$R_{\theta JC}$	6	°C /W
Operating and Storage Temperature Range		T_J,T_{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS

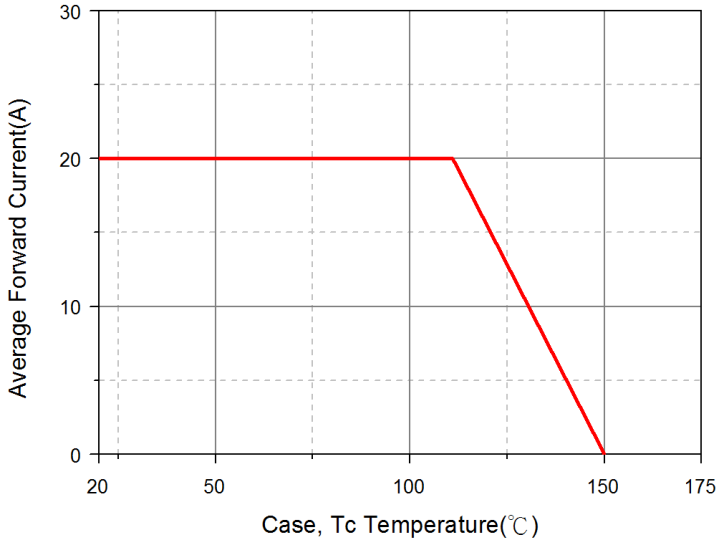
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.49	0.55	V	I_F=5A, T_J=25°C
		0.6	0.65		I_F=10A, T_J=25°C
		0.57	-		I_F=10A, T_J=125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage [2]	I_R	-	0.5	mA	T_J=25°C
		-	20		T_J=100°C
Typical Junction Capacitance [1]	C_J	280	-	pF	

Notes:

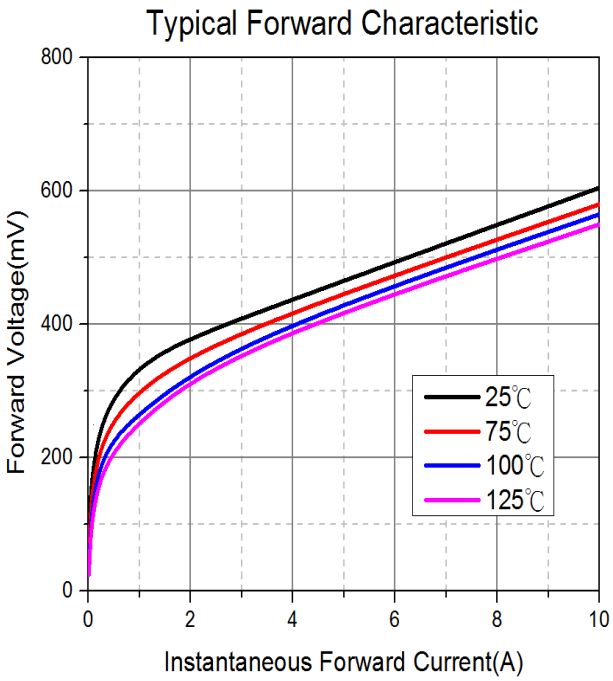
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Pulse Test : Pulse Width=300μs, Duty Cycle≦2.0%.
3. Surface mounted on 2.5cm x 2.5cm x 0.5mm copper pad area.

RATINGS AND CHARACTERISTIC CURVES

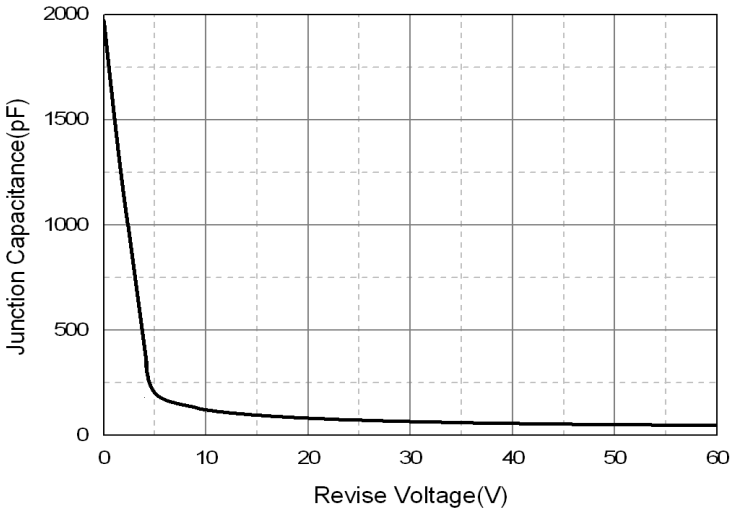
Typical Forward Current Derating Curve



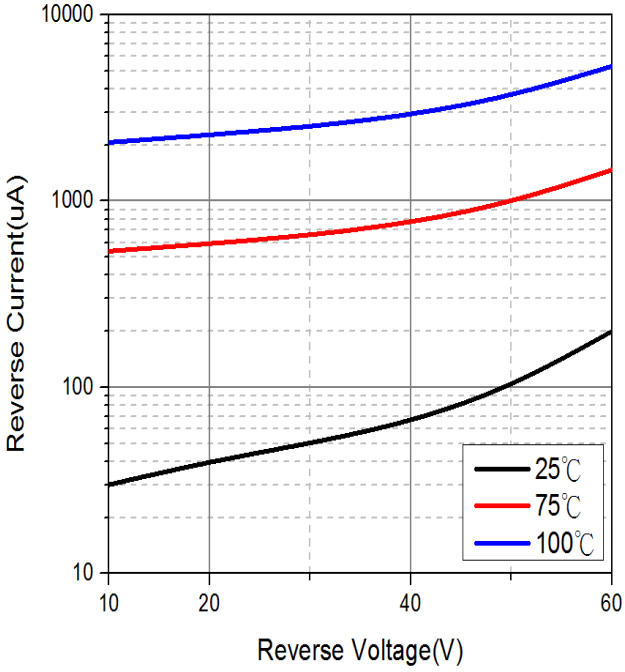
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current