Elektronische Bauelemente

SBL20U100DS1

Voltage 100V 20.0 Amp

Low VF Trench Barrier Schottky Rectifier

RoHS Compliant Product

A suffix of "-C" specifies halogen free

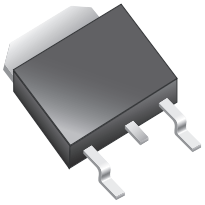
FEATURES

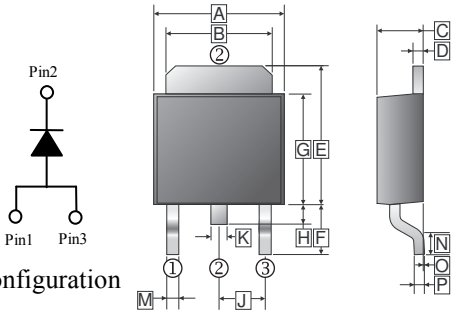
- Trench Barrier Schottky technology
- Low forward voltage drop
- Low reverse current

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked

TO-252





Configuration

REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	6.3	6.9	J	2.3 REF.	
B	4.95	5.53	K	0.89 REF.	
C	2.1	2.5	M	0.45	1.14
D	0.4	0.9	N	1.55 Typ.	
E	6	7.7	O	0	0.15
F	2.90 REF		P	0.58 REF.	
G	5.4	6.4			
H	0.6	1.2			

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13 inch

ORDER INFORMATION

Part Number	Type
SBL20U100DS1	Lead (Pb)-free
SBL20U100DS1-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}	100	V
Working Peak Reverse Voltage	V_{RSM}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	I_F	20	A
Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method)	I_{FSM}	250	A
Voltage Rate of Chance (Rated V_R)	dv/dt	10000	V / μs
Typical Thermal Resistance [1]	$R_{\theta JC}$	6	°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	0.44	0.47	V	I_F=3A, T_J=25°C
		0.58	0.63		I_F=10A, T_J=25°C
		0.67	0.73		I_F=15A, T_J=25°C
		0.75	0.8		I_F=20A, T_J=25°C
		0.7	-		I_F=20A, T_J=125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage [2]	I_R	-	0.2	mA	T_J=25°C
		-	20		T_J=100°C
Typical Junction Capacitance [3]	C_J	740	-	pF	

Notes:

1. Surface mounted on 2.5cm x 2.5cm x 0.5mm copper pad area.
2. Pulse Test: Pulse Width = 300 μs, Duty Cycle ≦ 2.0%.
3. Measured at 1MHz and applied reverse voltage of 5.0V D.C

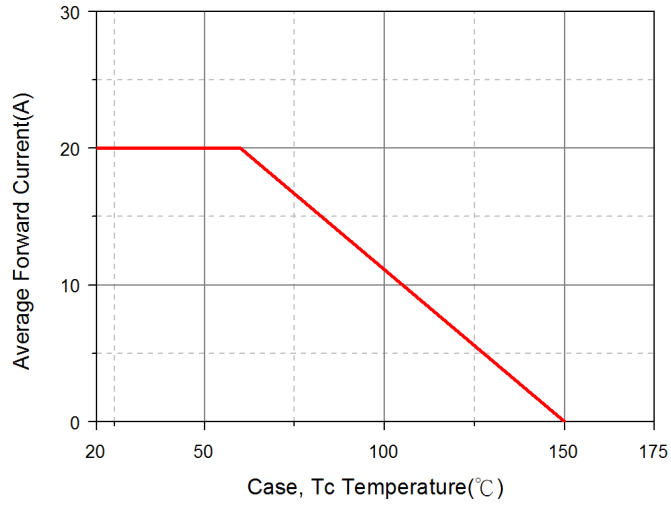
Elektronische Bauelemente

SBL20U100DS1

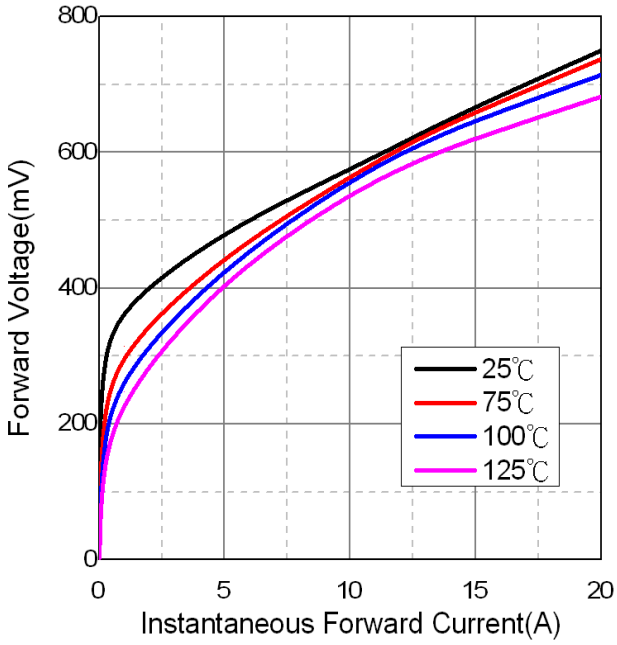
Voltage 100V 20.0 Amp
Low VF Trench Barrier Schottky Rectifier

RATINGS AND CHARACTERISTIC CURVES

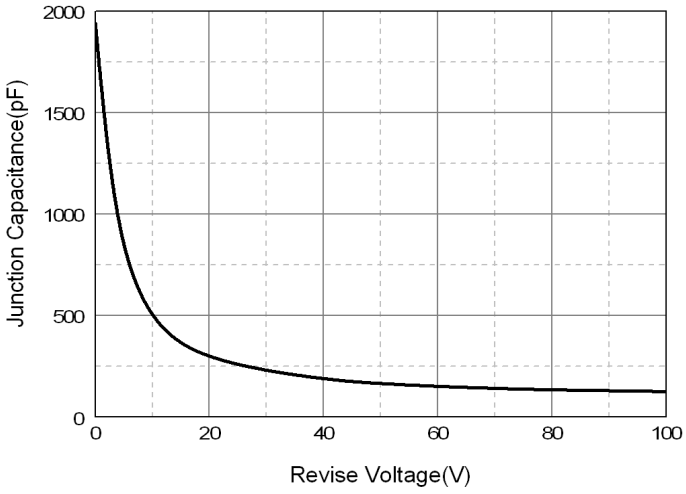
Typical Forward Current Derating Curve



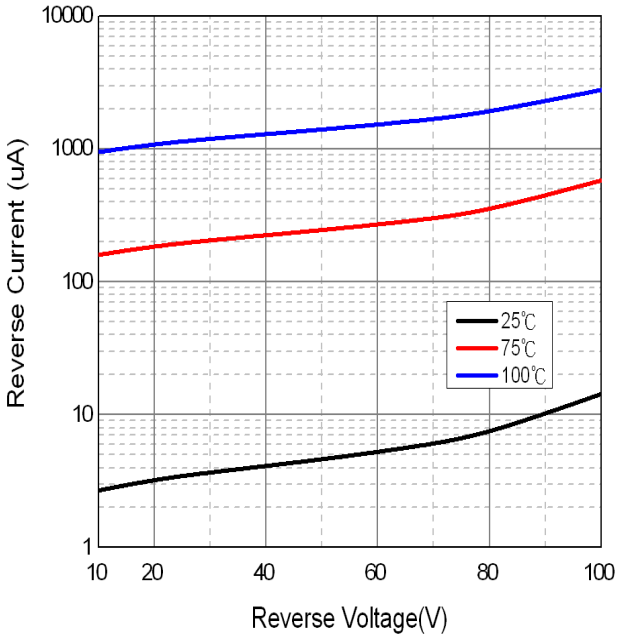
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

