

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

FEATURES

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

MECHANICAL DATA

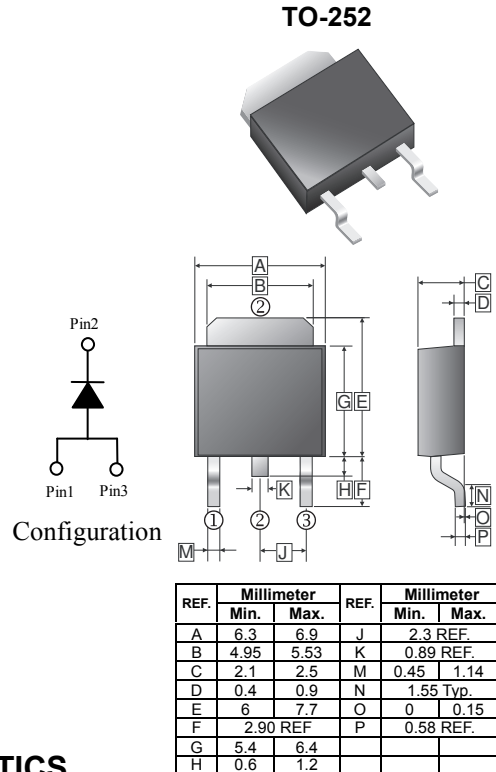
- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked

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 Change (Rated V_R)	dv/dt	10000	V / μ s
Typical Thermal Resistance ¹	$R_{\theta JC}$	6	°C / W
Operating and Storage Temperature Range	T_J, T_{STG}	-40~150	°C

ELECTRICAL CHARACTERISTICS

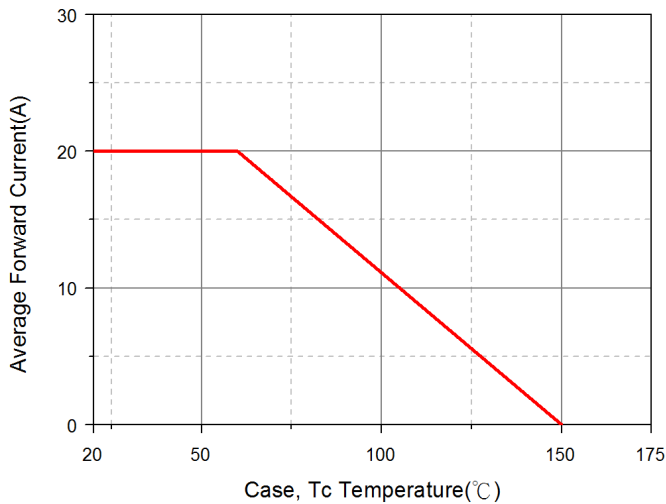
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.44	0.47	V	$I_F=3A, T_J=25^\circ C$
		0.58	0.63		$I_F=10A, T_J=25^\circ C$
		0.67	0.73		$I_F=15A, T_J=25^\circ C$
		0.75	0.8		$I_F=20A, T_J=25^\circ C$
		0.7	-		$I_F=20A, T_J=125^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage ²	I_R	-	0.2	mA	$T_J=25^\circ C$
		-	20		$T_J=100^\circ C$
Typical Junction Capacitance ³	C_J	740	-	pF	

Notes:

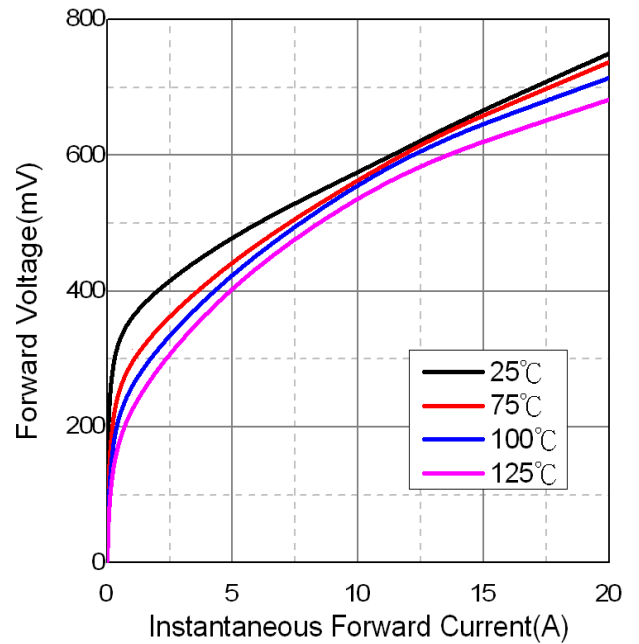
1. Surface mounted on 2.5cm x 2.5cm x 0.5mm copper pad area.
2. Pulse Test: Pulse Width = 300 μ s, Duty Cycle \leq 2.0%.
3. Measured at 1MHz and applied reverse voltage of 5.0V D.C

RATINGS AND CHARACTERISTIC CURVES

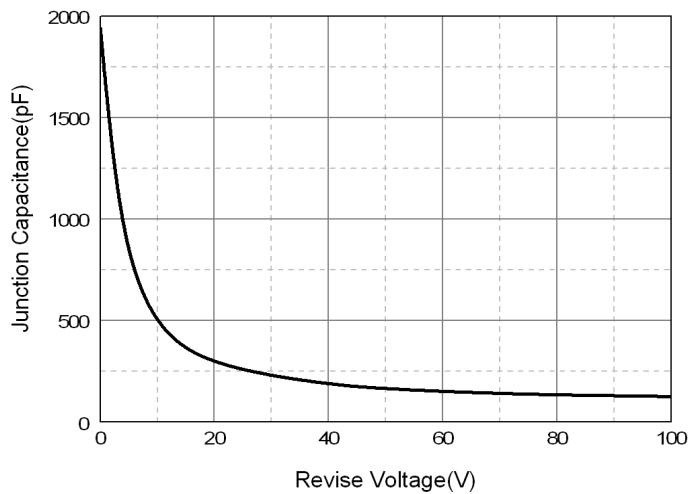
Typical Forward Current Derating Curve



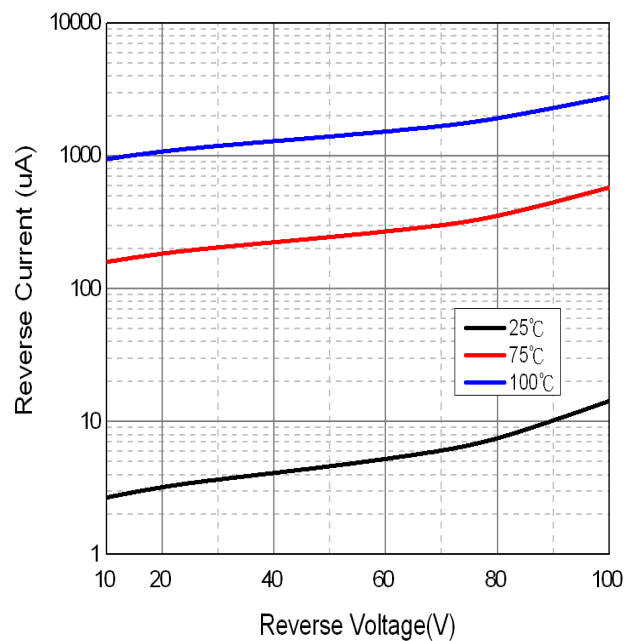
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

