

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

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

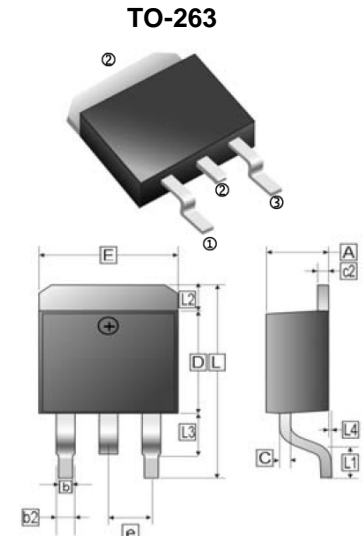
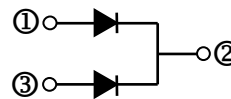
- Case: TO-263(D²-Pack) Molded Plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Mounting position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-263	0.8K	13 inch

ORDER INFORMATION

Part Number	Type
SBL40U150D	Lead (Pb)-free
SBL40U150D-C	Lead (Pb)-free and Halogen-free



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.00	4.87	c2	1.07	1.65
b	0.51	1.01	b2	1.34	REF
L4	0.00	0.30	D	8.0	9.65
C	0.30	0.74	e	2.54	REF
L3	1.50	REF	L	14.6	16.1
L1	2.5	REF	L2	1.27	REF
E	9.60	10.67			

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}	150	V
Working Peak Reverse Voltage	V_{RSM}	150	V
Maximum DC Blocking Voltage	V_{DC}	150	V
Maximum Average Forward Rectified Current	I_F	20	A
(Per Leg)		40	
(Per Device)			
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 from Junction to Case	$R_{\theta JC}$	2	°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-40~150	°C

ELECTRICAL CHARACTERISTICS

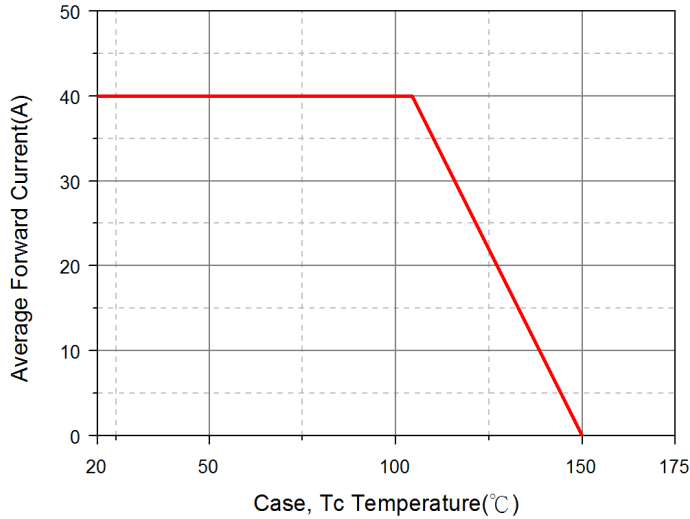
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.62	0.68	V	$I_F=3A, T_J=25^\circ C$
		0.77	0.83		$I_F=10A, T_J=25^\circ C$
		0.86	0.95		$I_F=20A, T_J=25^\circ C$
		0.72	-		$I_F=20A, T_J=125^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage ²	I_R	-	0.15	mA	$T_J=25^\circ C$
		-	30		$T_J=125^\circ C$
Typical Junction Capacitance ¹	C_J	340	-	pF	

Notes:

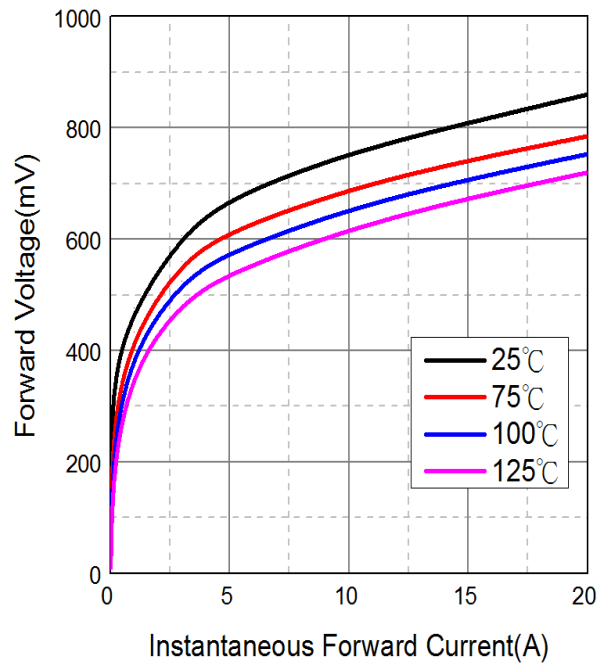
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Pulse Test : Pulse width=300 μ s, duty cycle \leq 2.0%.

RATINGS AND CHARACTERISTIC CURVES

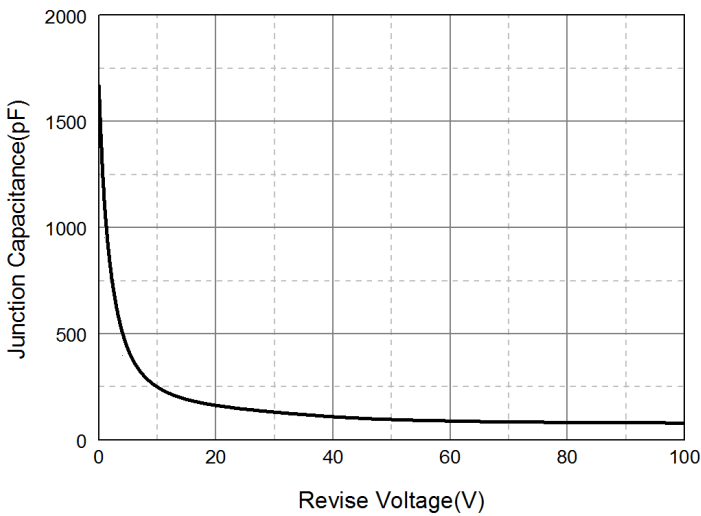
Typical Forward Current Derating Curve



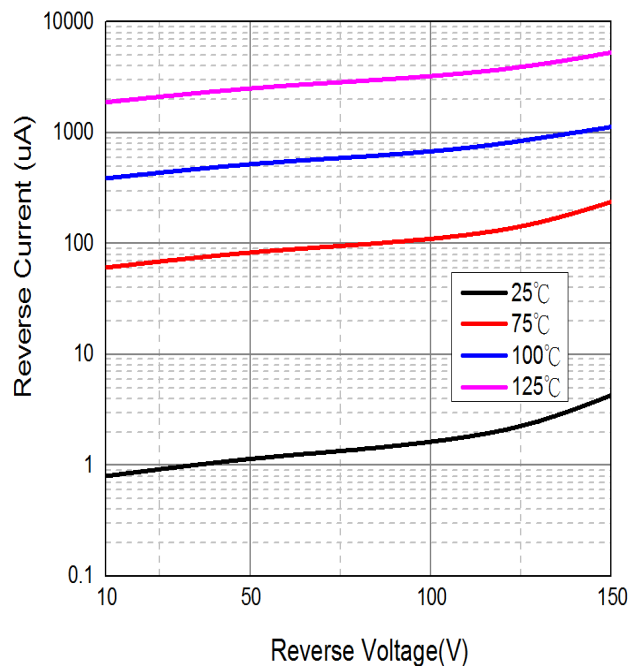
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

