Elektronische Bauelemente

SBL30U60D

Voltage 60V, 30A

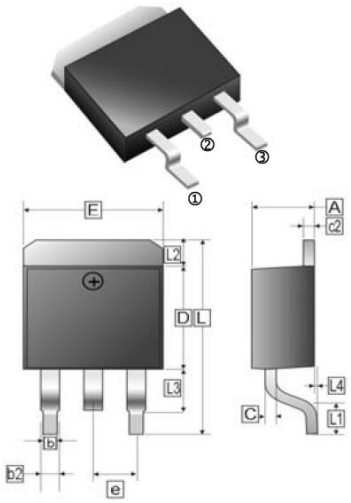
Low V_F Planar MOS Barrier Schottky Rectifier

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-263(D^2-PACK)



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			

MECHANICAL DATA

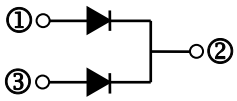
- Case: Molded Plastic
- Epoxy: UL94V-0 Rate Flame Retardant
- Lead: Lead Solderable per MIL-STD-202 Method 208 Guaranteed
- Polarity: As Marked
- Mounting Position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-263	0.8K	13 inch

ORDER INFORMATION

Part Number	Type
SBL30U60D	Lead (Pb)-free
SBL30U60D-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	
Maximum DC Blocking Voltage		V_{DC}	60	
Maximum Average Forward Rectified Current	(Per Leg)	I_F	15	A
	(Per Device)		30	
Peak Forward Surge Current, 8.3ms 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		$R_{\theta JC}$	3	°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	0.37	0.39	V	I_F=3A, T_J=25°C
		0.41	0.46		I_F=5A, T_J=25°C
		0.49	0.53		I_F=10A, T_J=25°C
		0.58	0.61		I_F=15A, T_J=25°C
		0.56	-		I_F=15A, 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	520	-	pF	

Notes:

1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Pulse Test: Pulse Width=300μs, Duty Cycle≦2%.

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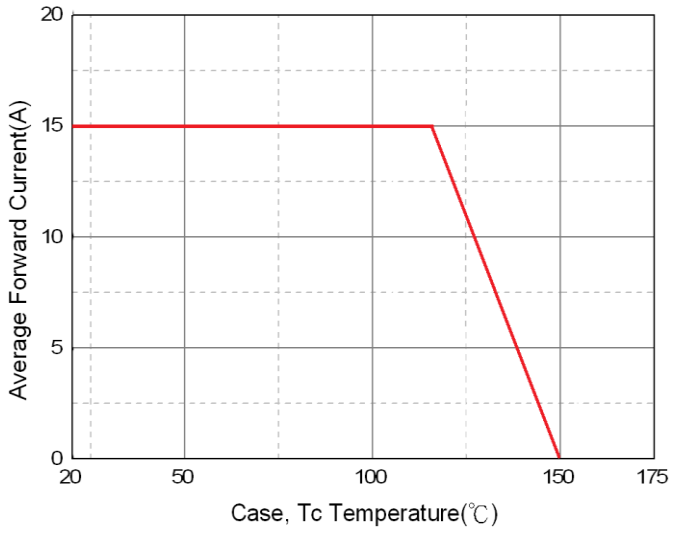
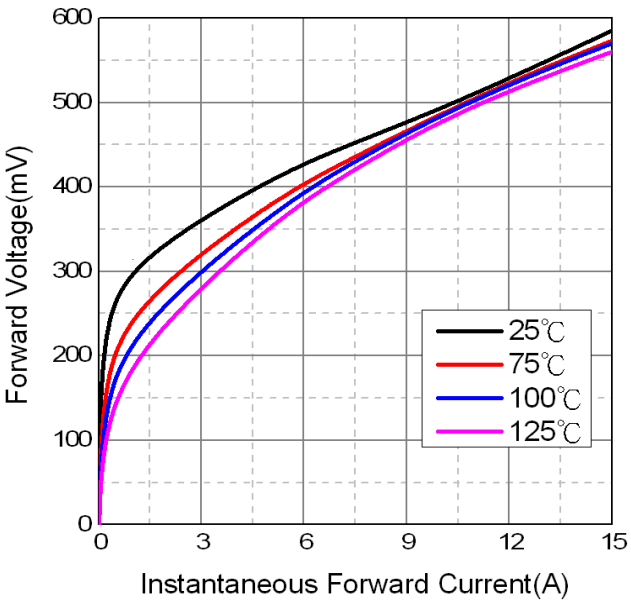
RATINGS AND CHARACTERISTIC CURVES

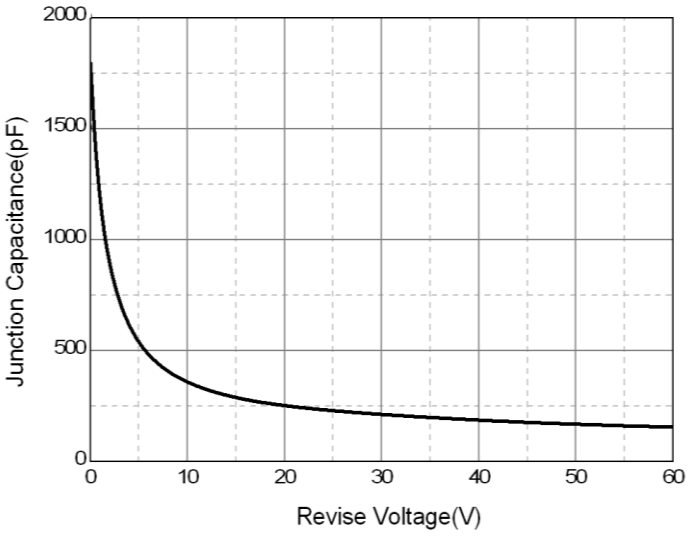
Typical Forward Current Derating Curve



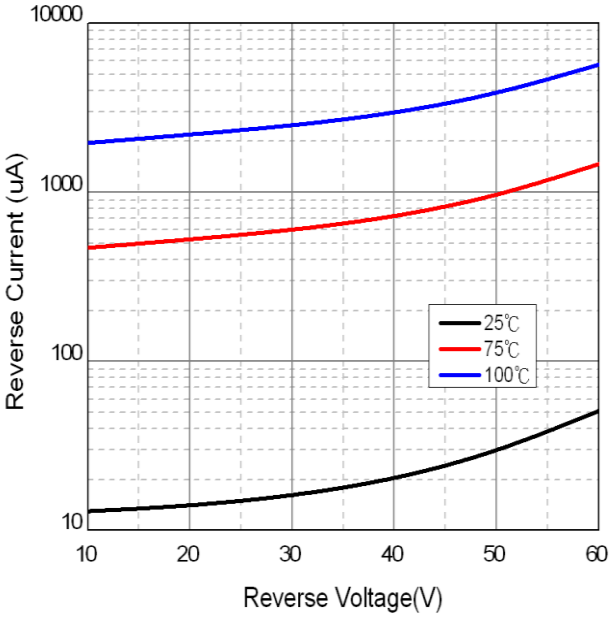
Typical Forward Characteristic



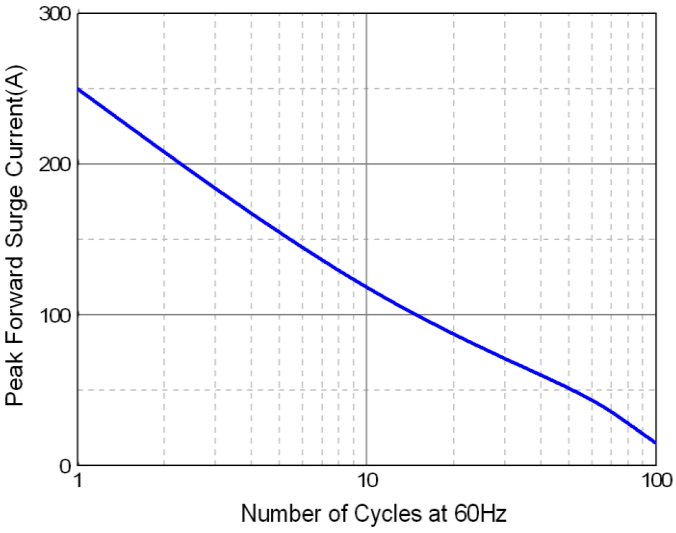
Typical Junction Capacitance



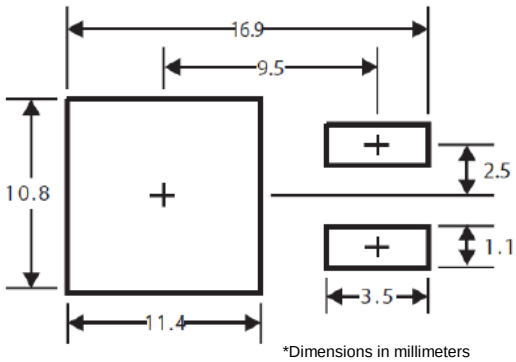
Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current



Mounting Pad Layout



*Dimensions in millimeters