SOD-123FL Surface Mount Schottky Barrier Rectifier

Features

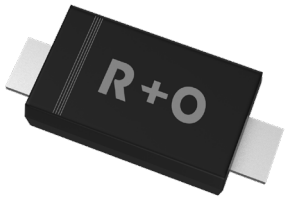
- V_R 40V/60V/100V
- $I_{F(AV)}$ 1A
- Low profile package
- Ideal for automated placement
- Low forward and reverse recovery times

Reverse Voltage
40/60/100 V
Forward Current
1.0 Ampere

Applications

These Schottky barrier diodes are designed for high speed switching applications, circuit protection, and voltage clamping.

SOD-123FL

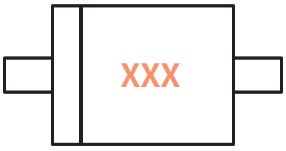


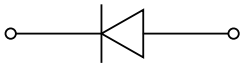
Mechanical Data

- Case: SOD-123FL
  Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

Function Diagram

Marking:
DSL34:L34
DSL36:L16
DSL310:L310





Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DSL34	DSL36	DSL310
Maximum repetitive peak reverse voltage	V_{RRM}	V	40	60	100
Maximum RMS voltage	V_{RMS}	V	28	42	70
Maximum DC blocking voltage	V_{DC}	V	40	60	100
Maximum Average Forward Rectified Current	$I_{F(AV)}$	A	3.0		
Non-repetitive Peak Forward Surge Current @t=8.3ms Half-sine wave	I_{FSM}	A	60		
Storage temperature	T_{stg}	°C	-55~+150		
Junction temperature	T_j	°C	-55 ~+150		
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	70		

Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	DSL34	DSL36	DSL310
Maximum instantaneous forward voltage	I_F=3.0A	V_{F1}	V	0.45	0.5	0.6
Maximum DC reverse currentat rated DC blocking voltage	V_R=V_{DC}, T_A=25°C	I_{R1}	mA	0.5		
	V_R=V_{DC}, T_A=100°C	I_{R2}		10		

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

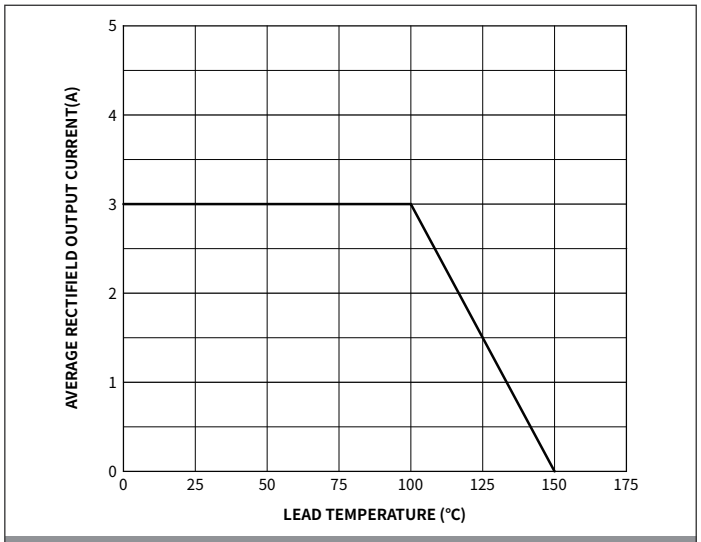


Fig.1 Typical Instaneous Forward Characteristics

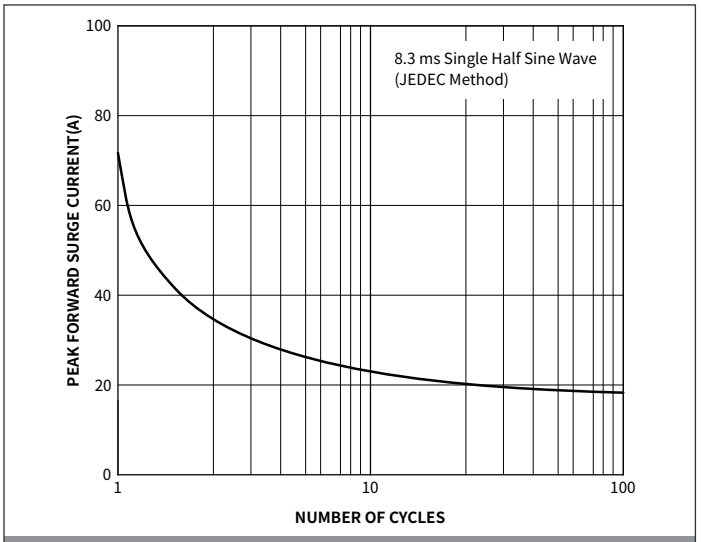


Fig.2 Typical Reverse Characteristics

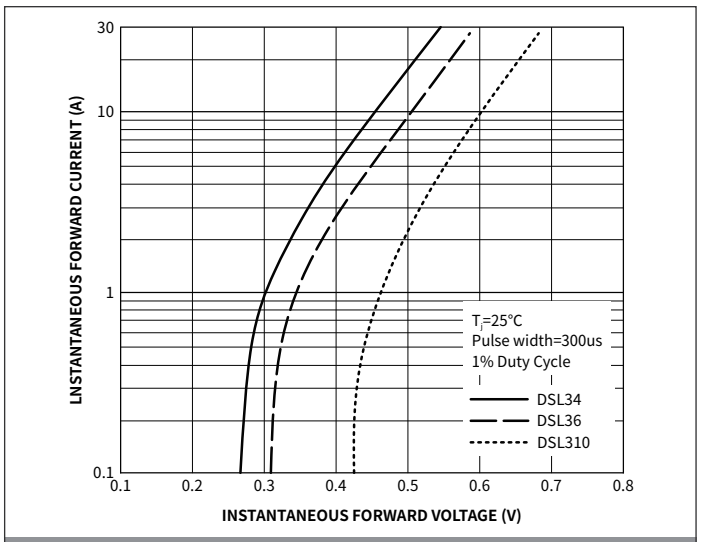


Fig.3 Typical Junction Capacitance

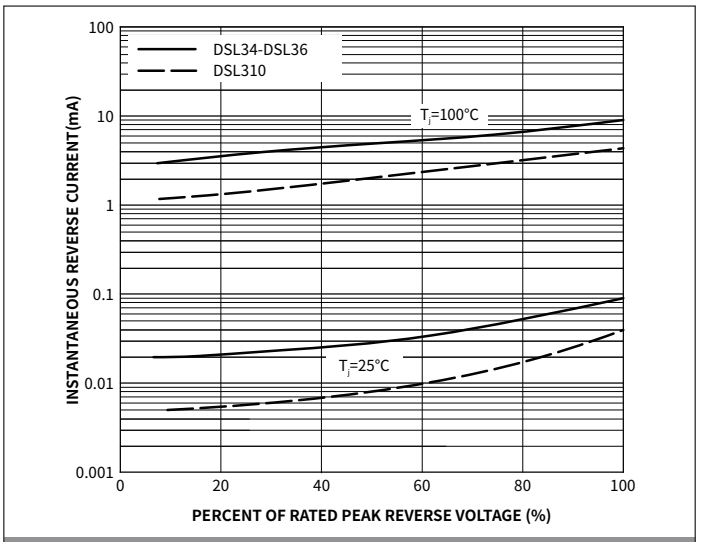
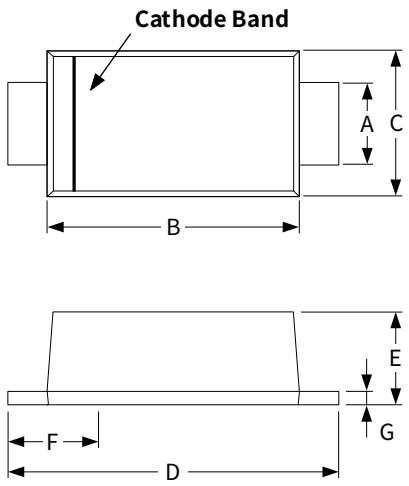


Fig.4 Power Derating Curve

Ordering Information

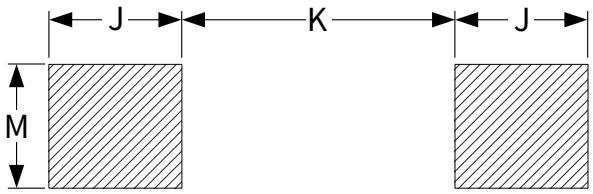
PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-123FL	R1	0.0169	3000	45000	180000	7''

Package Outline Dimensions (SOD -123FL)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.10	0.035	0.430
B	2.55	2.85	0.100	0.111
C	1.60	1.90	0.063	0.074
D	3.60	3.90	0.031	0.043
E	1.00	1.20	0.031	0.035
F	0.40	0.90	0.047	0.055
G	0.10	0.25	0.003	0.007

Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	1.00	-	0.040	-
K	-	1.90	-	0.074
M	1.50	-	0.059	-