

SOD-123FL Surface Mount Schottky Barrier Rectifier

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Reverse Voltage
20-200 V
Forward Current
1 Ampere

Applications

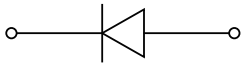
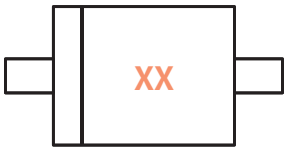
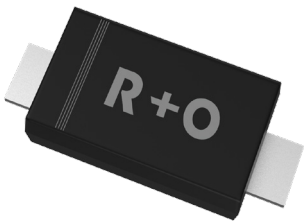
These Schottky barrier diodes are designed for high speed switching applications, circuit protection, and voltage clamping.

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

SOD-123FL



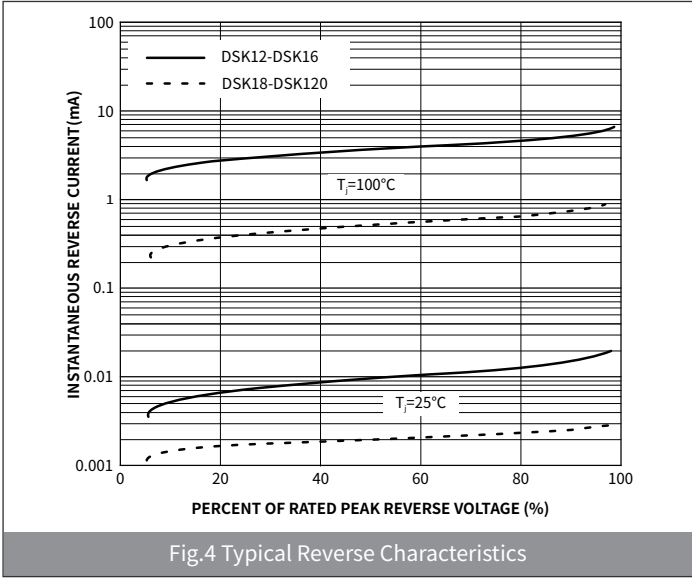
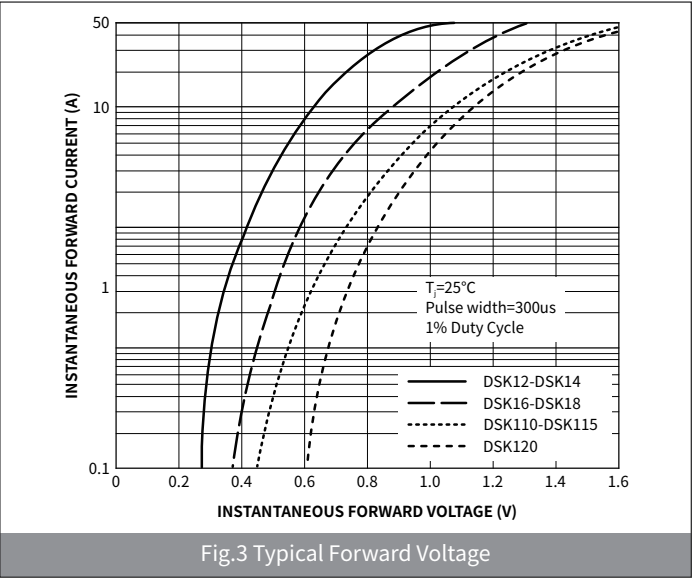
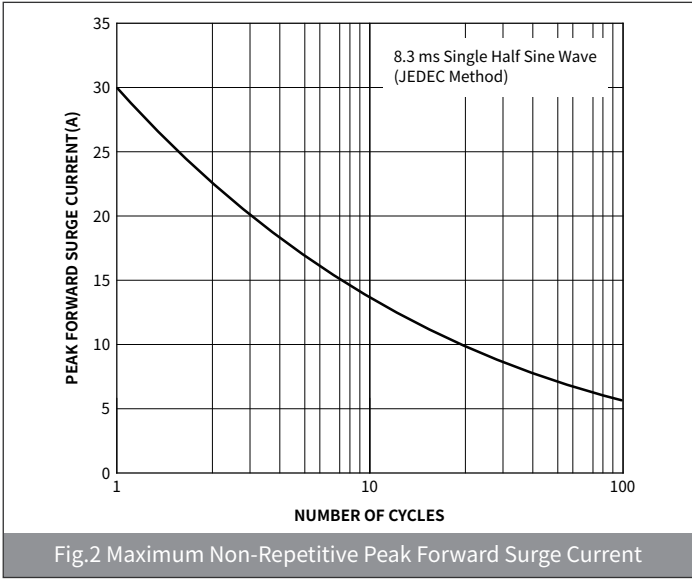
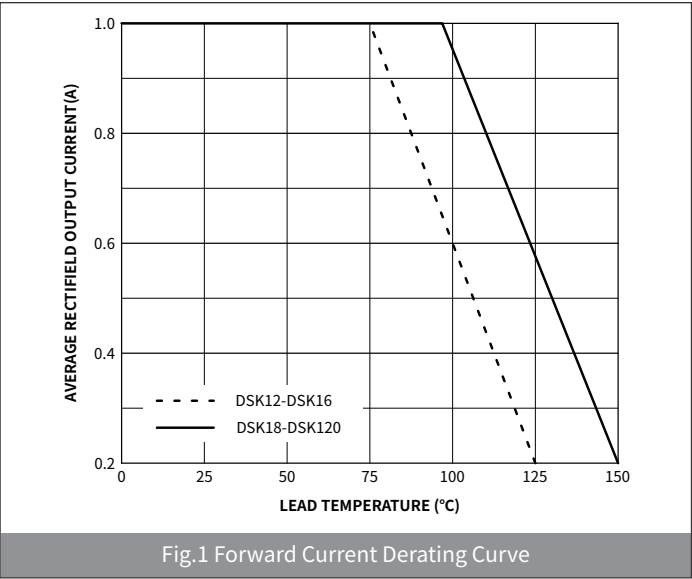
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DSK12	DSK14	DSK15	DSK16	DSK18	DSK110	DSK115	DSK120
Device marking code			K12	K14	K15	K16	K18	K110	K115	K120
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	20	40	50	60	80	100	150	200
Maximum RMS Voltage	V _{RMS}	V	14	28	35	42	56	70	105	140
Maximum DC blocking Voltage	V _{DC}	V	20	40	50	60	80	100	150	200
Maximum Average Forward Rectified Current @ 60Hz sinewave, Resistance load,TL (Fig.1)	I _{F(AV)}	A	1.0							
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I _{FSM}	A	25							
Storage temperature	T _{stg}	°C	-55 ~ +150							
Junction temperature	T _j	°C	-55 ~ +125				-55 ~ +150			
Typical Thermal Resistance	R _{θJ-A}	°C /W	85							
	R _{θJ-L}	°C /W	20							

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

Table with 12 columns: PARAMETER, TEST CONDITIONS, SYMBOL, UNIT, DSK12, DSK14, DSK15, DSK16, DSK18, DSK110, DSK115, DSK120. Rows include Maximum instantaneous forward voltage, Maximum DC reverse current, and Typical junction capacitance.

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

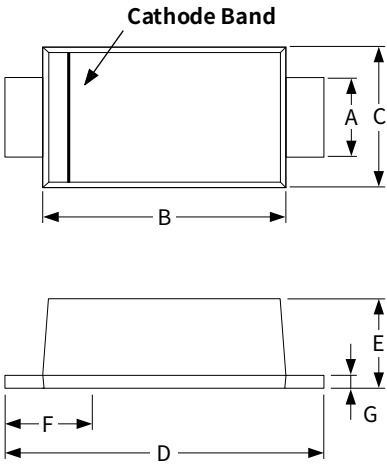


● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-123FL	R1	0.0169	3000	30000	120000	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	-

