

SOD-123FL Surface Mount Schottky Barrier Rectifier

Features

- Low power loss, high efficiency
- High forward surge current capability
- High Current Capability
- For surface mounted applications
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Reverse Voltage
20-200 V
Forward Current
1 Ampere

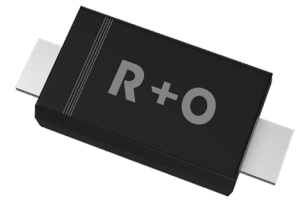
Applications

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

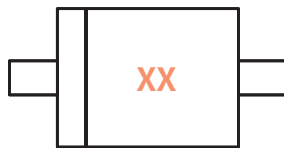
Mechanical Data

- 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

SOD-123FL



Function Diagram



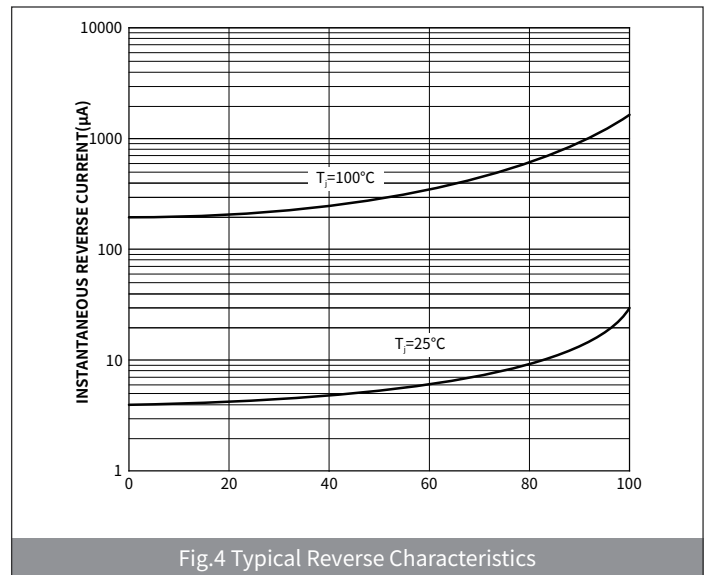
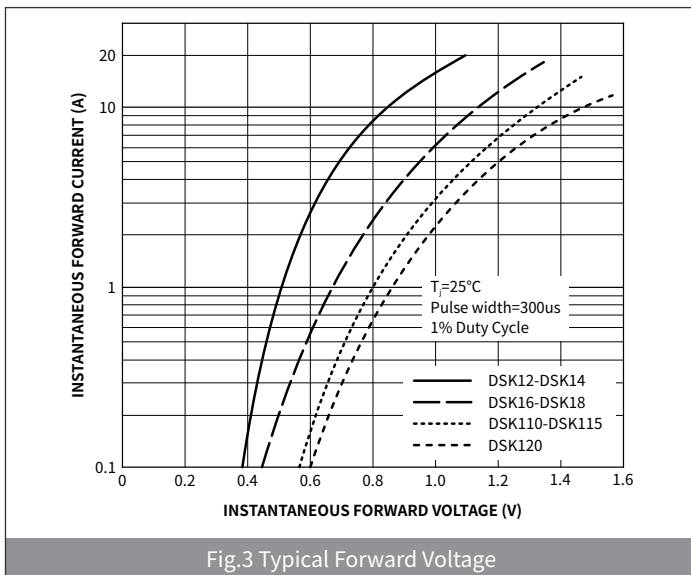
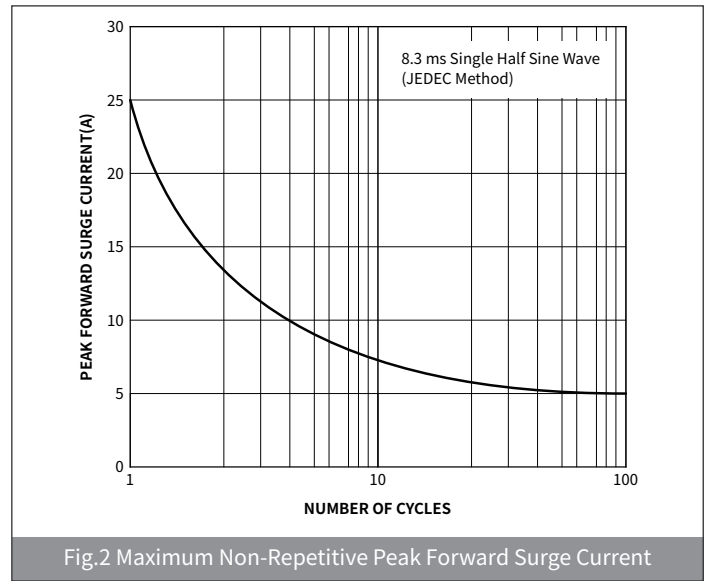
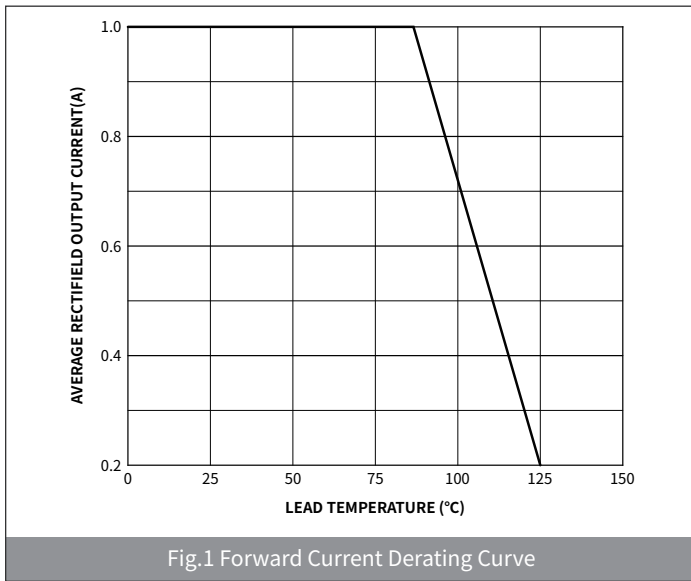
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DSK12	DSK14	DSK15	DSK16	DSK18	DSK110	DSK115	DSK120
Marking Code			K12	K14	K15	K16	K18	K110	K115	K120
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	20	30	40	60	80	100	150	200
Maximum RMS Voltage	V_{RMS}	V	14	21	28	42	56	70	105	140
Maximum DC Blocking Voltage	V_{DC}	V	20	30	40	60	80	100	150	200
Maximum Average Forward Rectified Current	$I_{F(AV)}$	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 ~+150							
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	100							

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	DSK12	DSK14	DSK15	DSK16	DSK18	DSK110	DSK115	DSK120
Maximum instantaneous forward voltage	$I_F=0.5\text{mA}$	V_F	V	0.55			0.70		0.85		0.90
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ\text{C}$	I_{R1}	mA	0.2				0.05			
	$V_R=V_{DC}, T_A=100^\circ\text{C}$	I_{R2}		20				5.0			
Typical junction capacitance	$V_R=4.0\text{V}, f=1\text{MHz}$	C_J	pF	30							

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



DSK12 THRU DSK120

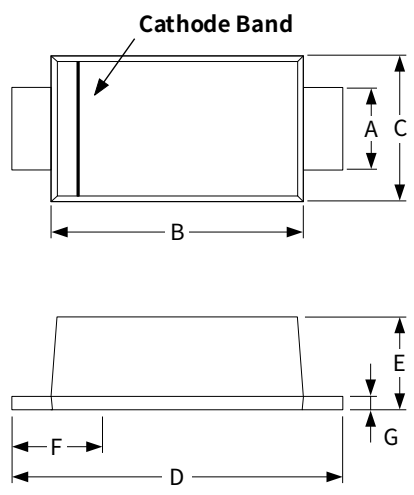
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

● 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"

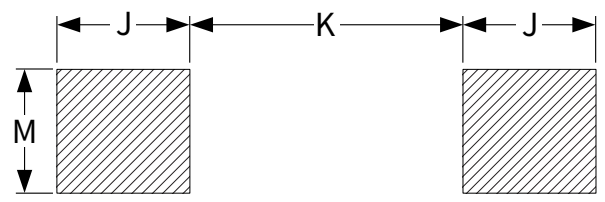
● Package Outline Dimensions (SOD -123FL)

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	-



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