

## 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

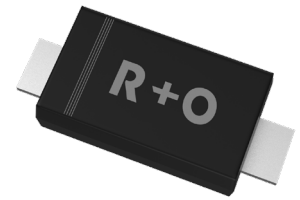
### Applications

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

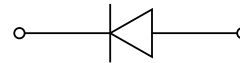
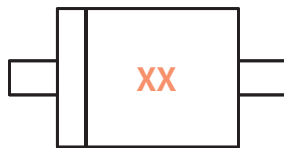
### Mechanical Data

- 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



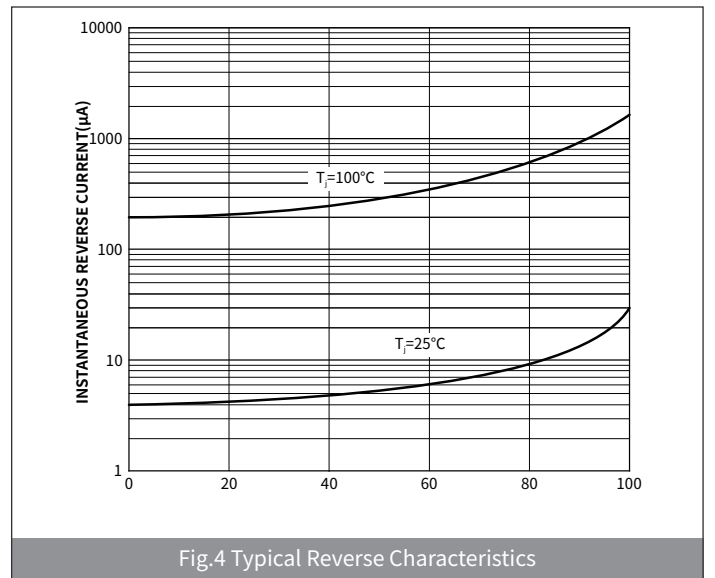
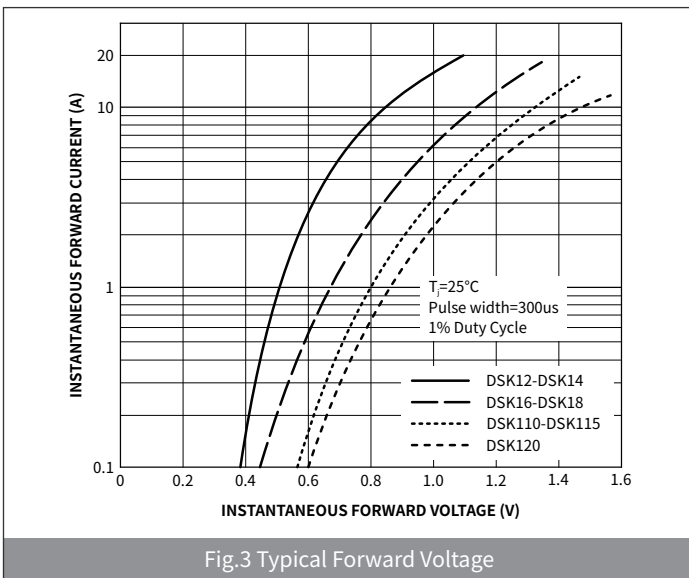
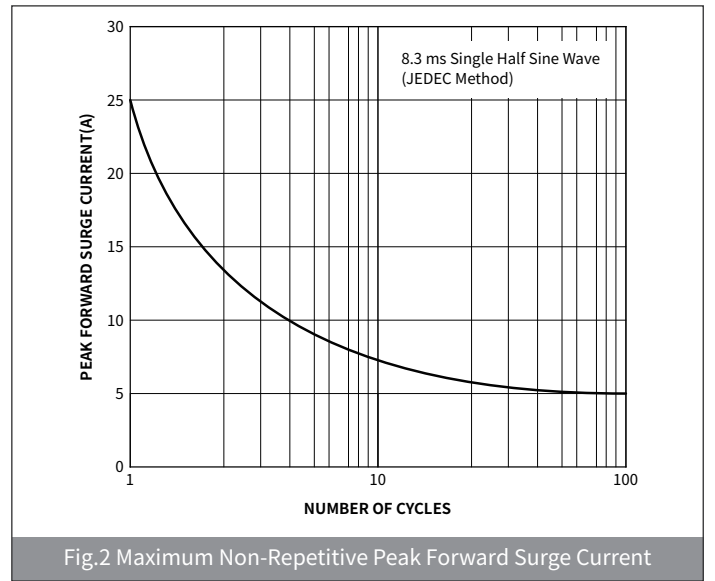
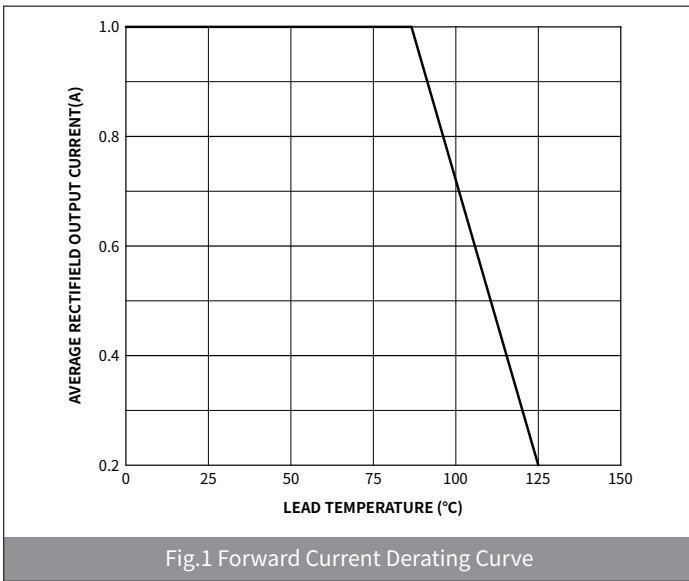
### Maximum Ratings (Ta=25°C Unless otherwise specified)

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	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	$I_{F(AV)}$	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	85							

● **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	$I_F=1.0A$	$V_F$	V	0.55			0.70		0.85		0.90
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^{\circ}C$	$I_{R1}$	mA	0.2				0.05			
	$V_R=V_{DC}, T_A=100^{\circ}C$	$I_{R2}$		20				5.0			
Typical junction capacitance	$V_R=4.0V, f=1MHz$	$C_J$	pF	110				80			

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



# DSK12 THRU DSK120

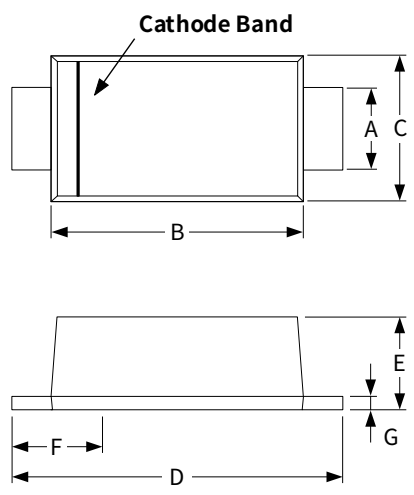
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

## ● 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	-

