

Features

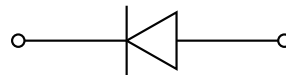
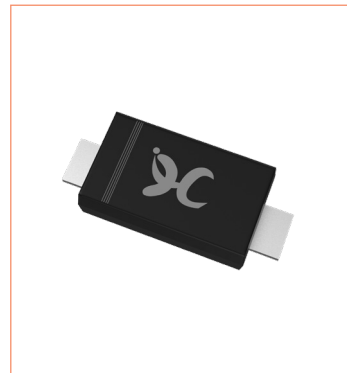
- High Current Capability
- Low Forward Voltage Drop
- Low IR
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Applications

The device is a single rectifier offering low VF and excellent high temperature stability.

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


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

PARAMETER	SYMBOL	UNIT	DSK12	DSK14	DSK15	DSK16	DSK18	DSK110	DSK115	DSK120
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							
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	85							

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

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 reverse current	V _R =V _{RRM} ,T _A =25 °C	I _R	mA	0.2				0.05			
	V _R =V _{RRM} ,T _A =100°C			20				5			
Typical junctioncapacitance	4.0V DC,1MHz	C _J	pF	110		80					

► **Ratings And Characteristics Curves** ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

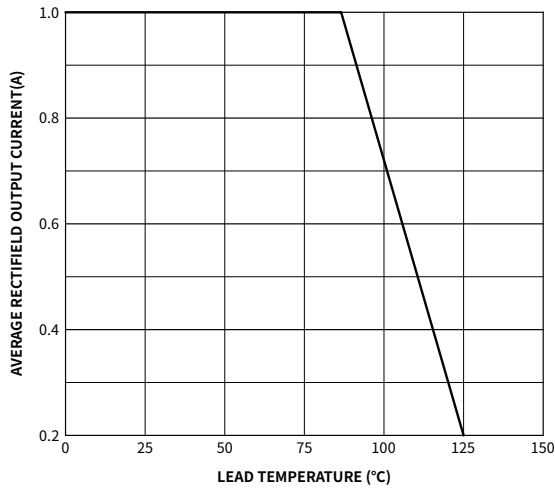


Fig. 1 Forward Current Derating Curve

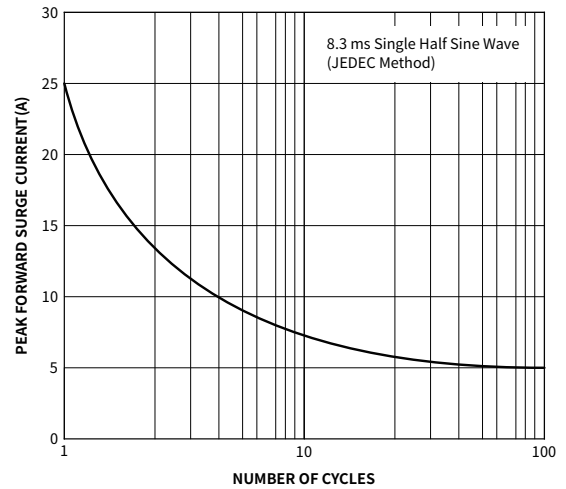


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

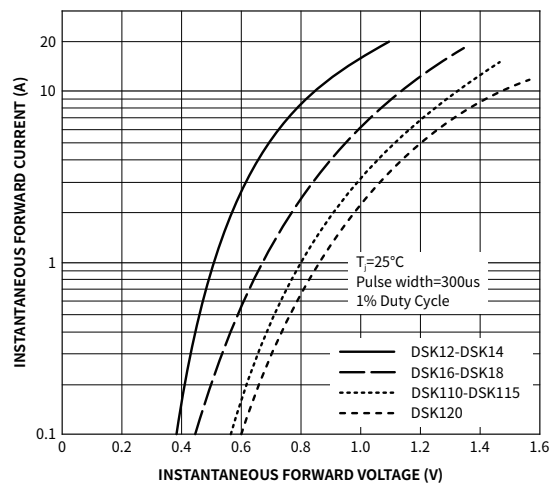


Fig.3 Typical Forward Voltage

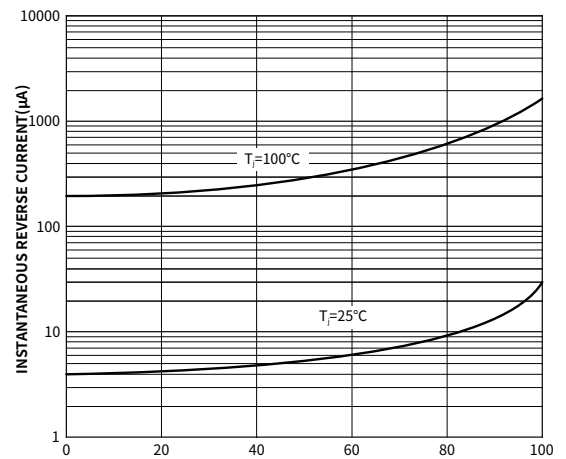


Fig.4 Typical Reverse Characteristics

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	-