

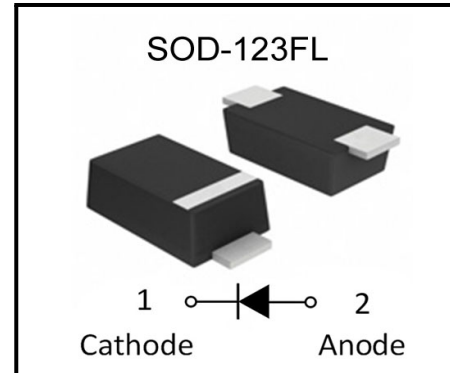
F1M

Fast Recovery
Rectifier Diode

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

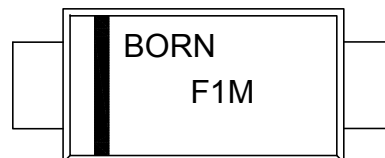
Package



General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SOD-123FL Plastic Package

Making Code



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
F1M	SOD-123FL	F1M	3K	Tape and reel

Maximum Ratings (@T_A=25°C unless otherwise noted)

Symbol	Parameters	Value	Unit
V _{RRM}	Maximum Repetitive Peak Reverse Voltage	1000	V
V _{RMS}	Maximum RMS Voltage	700	V
V _{DC}	Maximum DC Blocking Voltage	1000	V
I _{F(AV)}	Maximum Average Forward Rectified Current	1.0	A
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3ms Single half-sine-wave	30	A
R _{θJA}	Typical Thermal Resistance	45	°C/W
T _J	Operating Junction Temperature Range	-55 to +150	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C

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Specifications are subject to change without notice.

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Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameters	Text Condition	Value	Unit
V_F	Maximum Forward Voltage	$I_F=1.0\text{A}$	1.3	V
I_R	at V_{DC} Maximum Reverse Current	$T_A = 25^{\circ}\text{C}$	5	uA
		$T_A = 100^{\circ}\text{C}$	100	
T_{rr}	Maximum reverse reconvertime	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$	500	nS
C_J	Type Junction Capacitance	$V_R=4.0\text{V}, f=1\text{MHz}$	15	pF



Typical Performance Characteristics ($T_J = 25^\circ\text{C}$, unless otherwise noted)

Figure 1: Typical Forward Characteristics

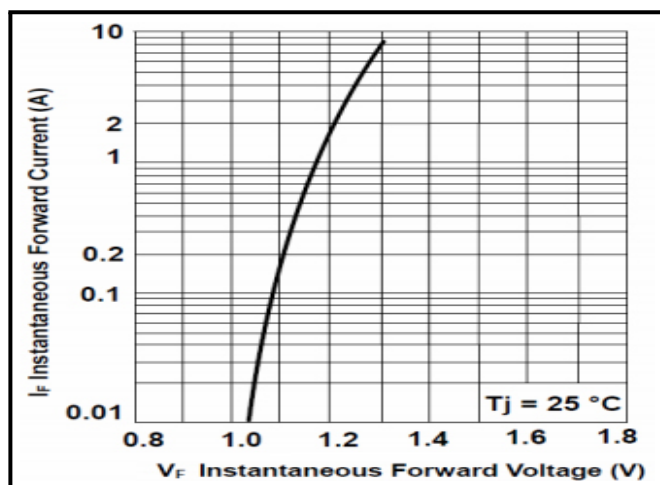


Figure 2: Forward Current Derating Curve

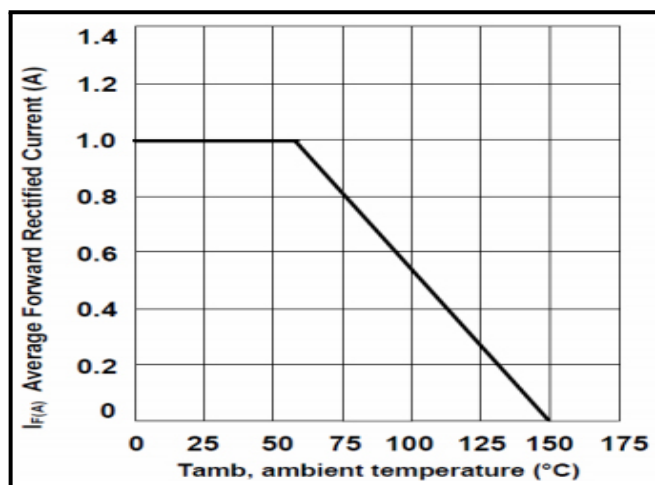
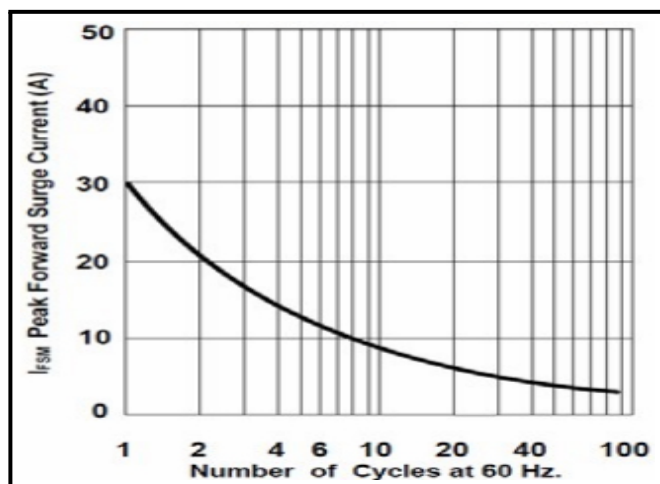


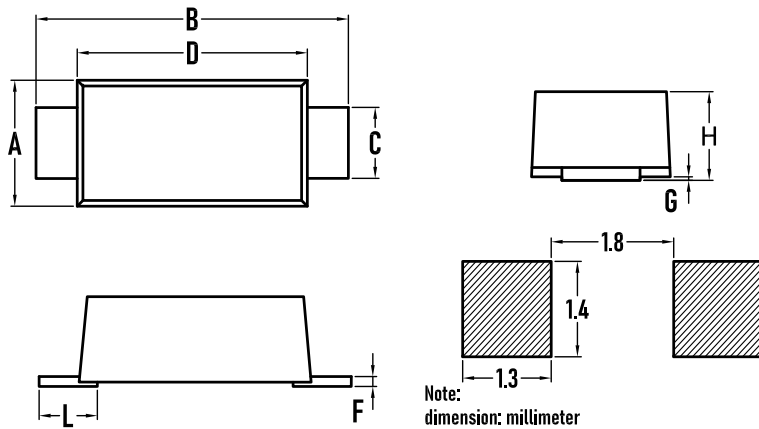
Figure 3: Maximum Non-Repetitive Peak Forward Surge Current



F1M

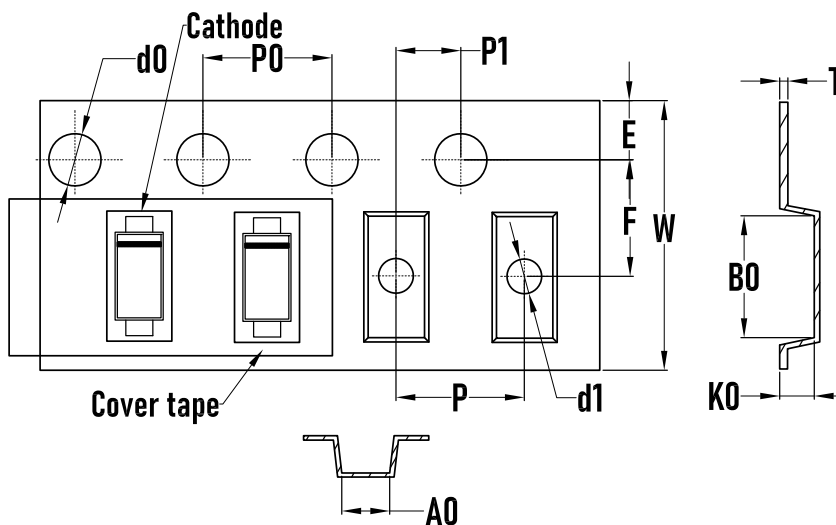
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Package Mechanical Data - SOD-123FL



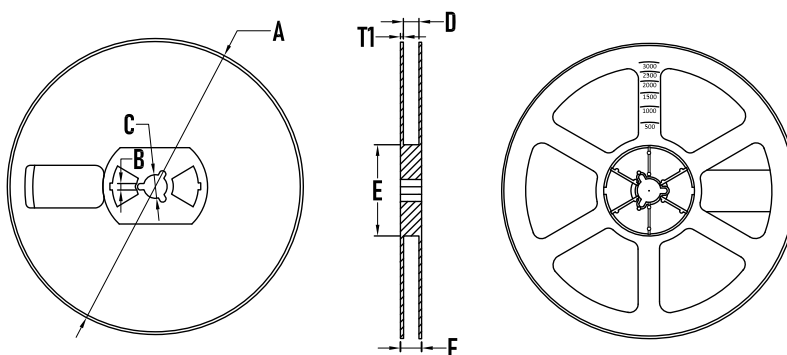
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	1.50	1.75	2.00
B	3.40	3.65	3.90
C	0.70	0.95	1.20
D	2.50	2.70	2.90
F	0.05	0.15	0.26
G	0.00	—	0.10
H	0.95	1.15	1.35
L	0.35	0.63	0.90

Packaging Tape - SOD-123FL



SYMBOL	MILLIMETER
A0	2.10±0.1
B0	4.0 ±0.1
d0	1.5±0.1
d1	1.0±0.1
E	1.75±0.1
F	3.50±0.1
K0	1.25±0.1
P	4.00±0.1
P0	4.00±0.1
P1	2.00±0.1
W	8.00±0.1
T	0.2±0.02

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	2.7±0.2
C	13.5±0.2
D	9.6±0.3
E	54.5±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

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