



ES1000FL~ES1010FL
SUPER FAST RECOVERY RECTIFIER

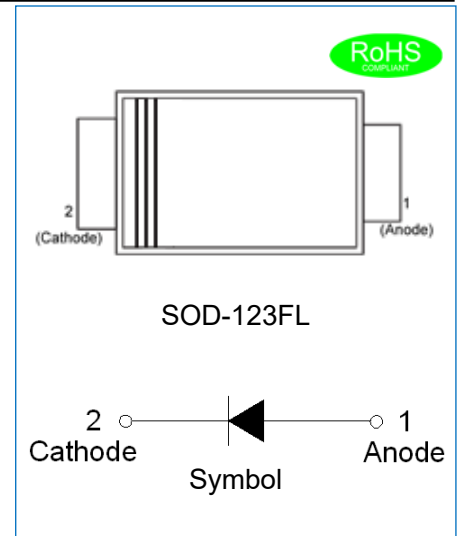
Rev.4.0

DESCRIPTION

- ✧ Plastic package has underwriters laboratory flammability classification 94V-0
- ✧ For surface mounted applications in order to optimize board space
- ✧ Glass passivated chip junction
- ✧ Lead free in comply with EU RoHS 2011/65/EU directives
- ✧ Super fast recovery time

MECHANICAL DATA

- ✧ Case: SOD-123FL molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.0144 gram



ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified.)

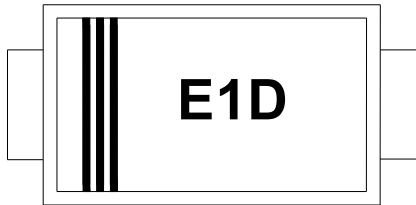
Parameter		Symbol	ES1000 FL	ES1001 FL	ES1002 FL	ES1004 FL	ES1006 FL	ES1010 FL	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	1000	V
Maximum RMS voltage		V_{RMS}	35	70	140	280	420	700	V
Maximum DC blocking voltage		V_{DC}	50	100	200	400	600	1000	V
Maximum average forward current at $T_A=75^\circ\text{C}$		$I_{F(AV)}$	1.0						A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	30						A
Maximum forward voltage @ $I_F=1.0\text{A}$		V_F	0.95		1.3	1.7	2.4	V	
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^\circ\text{C}$	I_R	5						μA
	$T_j=150^\circ\text{C}$		200						μA
Typical junction capacitance $V_R=4.0\text{V}$, $f=1\text{MHz}$		C_J	15			10			pF
Maximum reverse recovery time $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$		t_{rr}	35						ns
Operating junction and storage temperature range		T_j, T_{stg}	-55 to +150						$^\circ\text{C}$

THERMAL RESISTANCES

Symbol	Parameter	ES1000	ES1001	ES1002	ES1004	ES1006	ES1010	Unit
		FL	FL	FL	FL	FL	FL	
$R_{th(j-c)}$	Junction to case(note1)	25						$^{\circ}C/W$

Note1: Thermal resistance from junction to case mounted on P.C.B. with 5.0 mm x 5.0 mm copper pad areas.

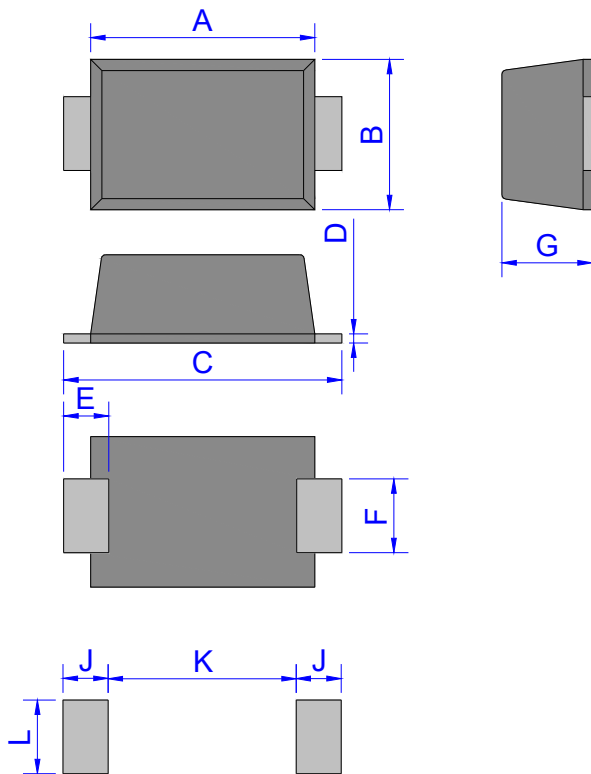
MARKING



E	Super Fast Recovery Rectifier
1	$I_{F(AV)}=1.0A$
D	$V_{RRM}:200V$

A:50V B:100V D:200V G:400V J:600V M:1000V

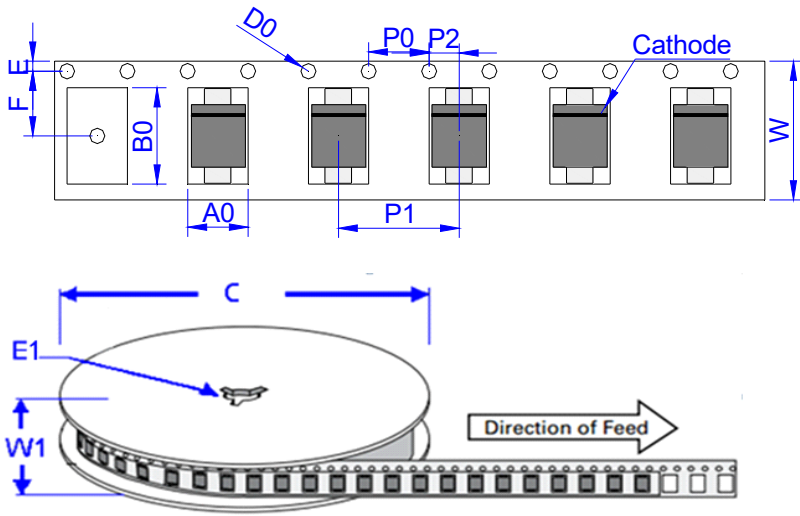
PACKAGE MECHANICAL DATA



SOD-123FL

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.60	3.00	0.102	0.118
B	1.60	2.00	0.063	0.079
C	3.45	3.95	0.136	0.156
D	0.10	0.25	0.004	0.01
E	0.3	0.9	0.012	0.035
F	0.80	1.20	0.031	0.047
G	0.95	1.35	0.037	0.053
J	1.30		0.051	
K		1.70		0.067
L	1.30		0.051	

TAPE AND REEL SPECIFICATION-SOD-123FL



Ref.	Dimensions	
	Millimeters	Inches
A0	1.95 ± 0.3	0.077± 0.012
B0	3.95 ± 0.3	0.156 ± 0.012
C	178	7.0
D0	1.55 ± 0.1	0.061 ± 0.004
E	1.75 ± 0.2	0.069 ± 0.008
E1	13.3 ± 0.3	0.524± 0.012
F	3.50 ± 0.2	0.138 ± 0.008
P0	4.00 ± 0.2	0.157 ± 0.008
P1	4.00 ± 0.2	0.157 ± 0.008
P2	2.00 ± 0.2	0.079 ± 0.008
W	8.0± 0.2	0.315 ± 0.008
W1	11.5 ± 1.0	0.453 ± 0.039

OUTLINE	UNIT WEIGHT (g/PCS) typ.	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)
TAPING	0.0144	3,000	150,000	178

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics (25°C)

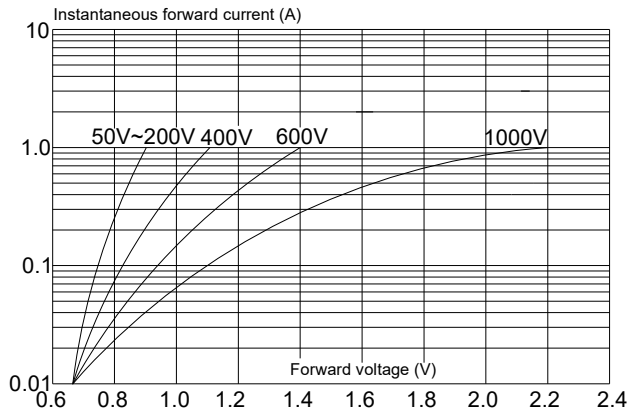


FIG.2: Typical reverse characteristics

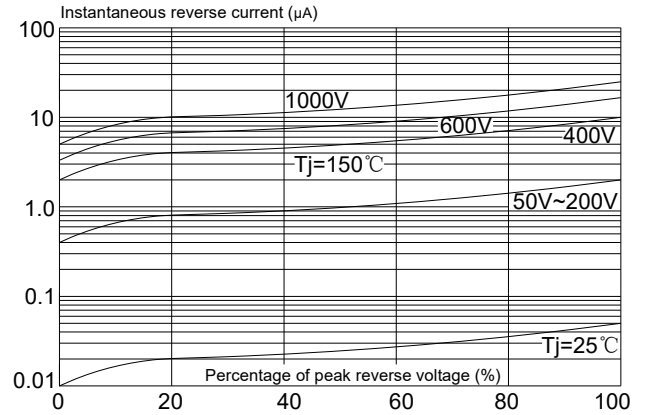


FIG.3: Maximum non-repetitive peak forward surge current

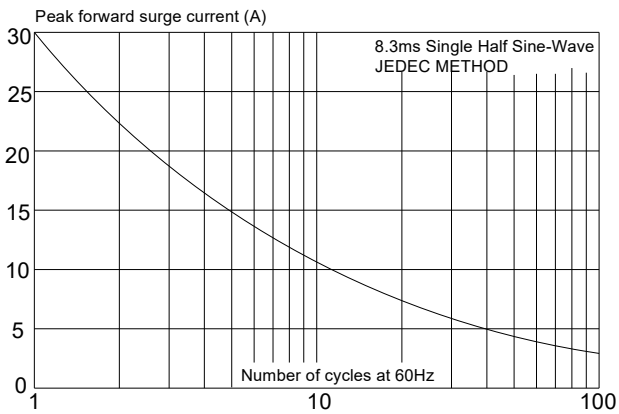
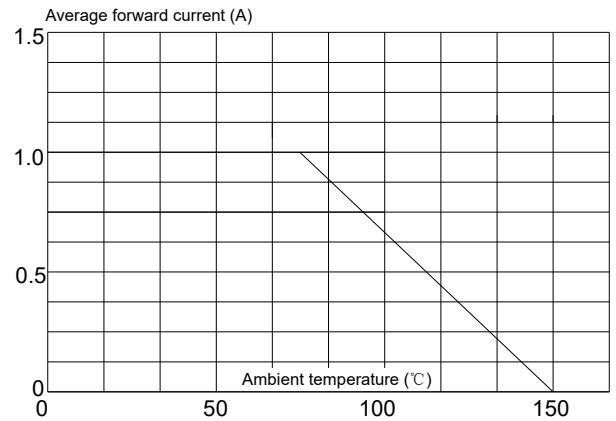


FIG.4: Forward current derating curve



JieJie products are not designed for, and shall not be used for, any purpose (including, without limitation, automotive, military, aerospace, medical, life-saving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than those expressly set forth in applicable JieJie product documentation. Warranties granted by JieJie shall be deemed void for products used for any purpose not expressly set forth in applicable JieJie documentation. JieJie shall not be liable for any claims or damages arising out of products used in applications not expressly intended by JieJie as set forth in applicable JieJie documentation. The sale and use of JieJie products is subject to JieJie terms and conditions of sale, unless otherwise agreed by JieJie.

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.

Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information.

This document is the fourth version which is made in 30-Oct.-2025. This document supersedes and replaces all information previously supplied.

 is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd.

Copyright ©2025 Jiangsu JieJie Microelectronics Co., Ltd. Printed All rights reserved.