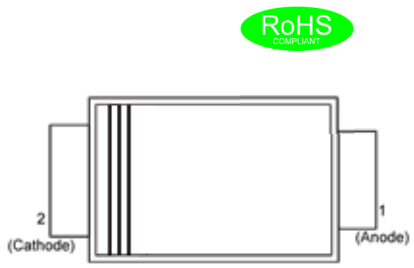
GS1000FL~GS1010FL

GENERAL PURPOSE RECTIFIER

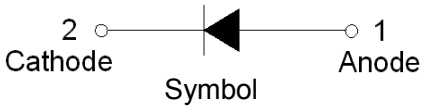
Rev.2.1

DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ Exceeds environmental standards of MIL-S-19500/228
- ✧ For surface mounted applications in order to optimize board space
- ✧ Glass passivated chip junction
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directive
- ✧ Low forward voltage drop



SOD-123FL



Symbol

MECHANICAL DATA

- ✧ Case: JEDEC SOD-123FL molded plastic
- ✧ Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.0165 gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

(Rating at 25℃ ambient temperature unless otherwise specified.)

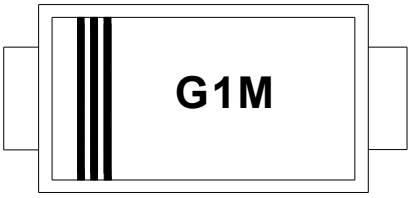
Parameter		Symbol	GS1000 FL	GS1001 FL	GS1002 FL	GS1004 FL	GS1006 FL	GS1008 FL	GS1010 FL	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum non-repetitive peak reverse voltage		V_{RSM}	55	110	220	440	660	880	1100	V
Maximum RMS voltage		V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage		V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward current at T_L=75℃		$I_{F(AV)}$	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=1.0A		V_F	1.1							V
Maximum DC reverse current at rated DC blocking voltage	T_j=25℃	I_R	5.0							μA
	T_j=150℃		150							
Typical junction capacitance V_R=4.0V, f=1MHz		C_J	7							pF
Operating junction and storage temperature range		T_j , T_{stg}	-60 to +150							℃

THERMAL RESISTANCES

Symbol	Parameter	GS1000 FL	GS1001 FL	GS1002 FL	GS1004 FL	GS1006 FL	GS1008 FL	GS1010 FL	Unit
$R_{th(j-L)}$	Junction to lead (note1)	20							℃/W

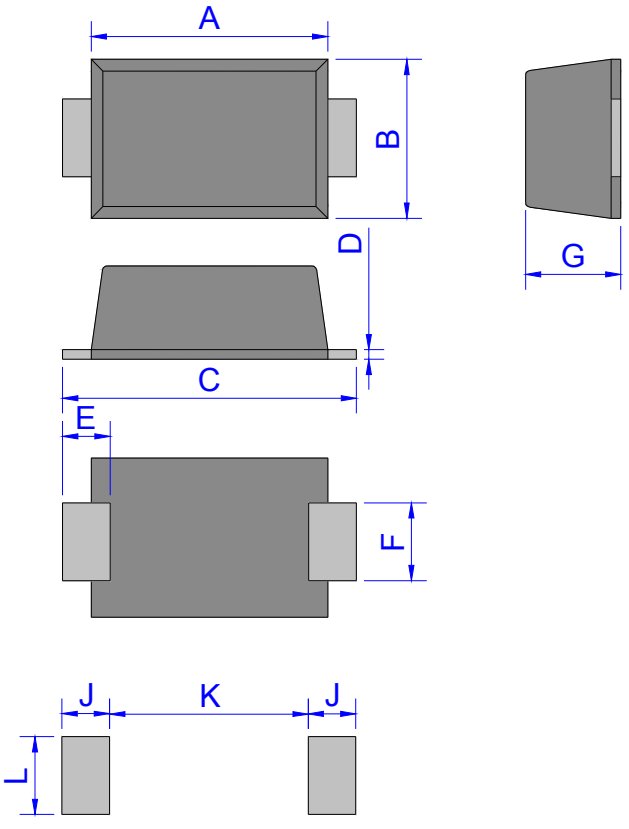
Note1：Thermal resistance from junction to lead mounted on P.C.B. with 4.0 mm x 4.0 mm copper pad areas.

MARKING



G	General Purpose Rectifier
1	$I_{F(AV)}$=1.0A
M	V_{RRM}:1000V

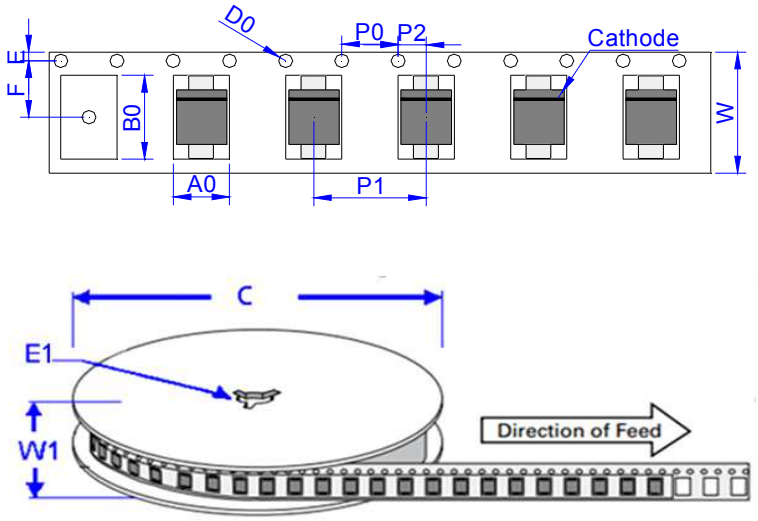
PACKAGE MECHANICAL DATA



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	0.0165	3,000	150,000	178

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics (25℃)

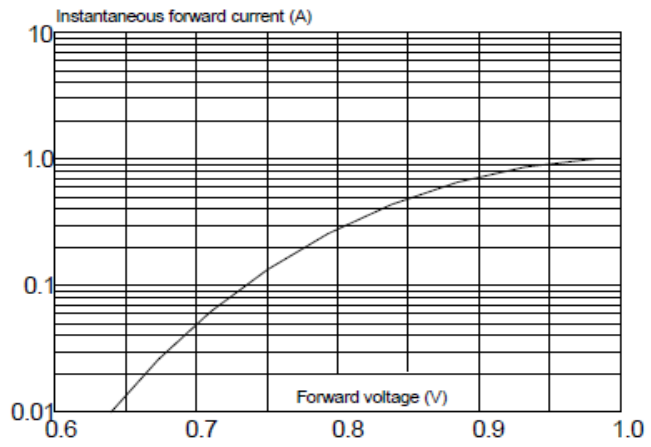


FIG.2: Typical reverse characteristics

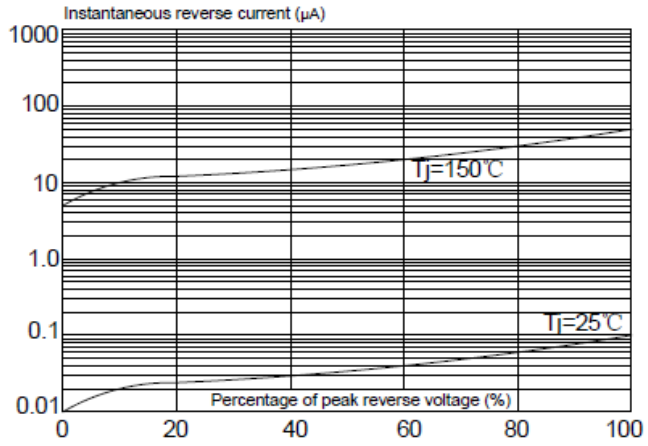


FIG.3: Maximum non-repetitive peak forward surge current

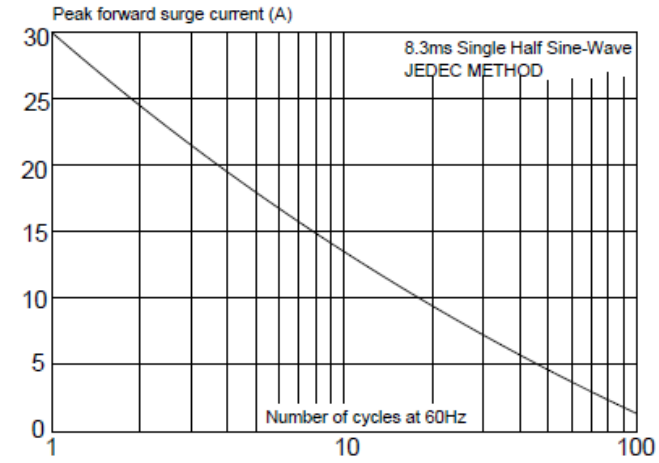
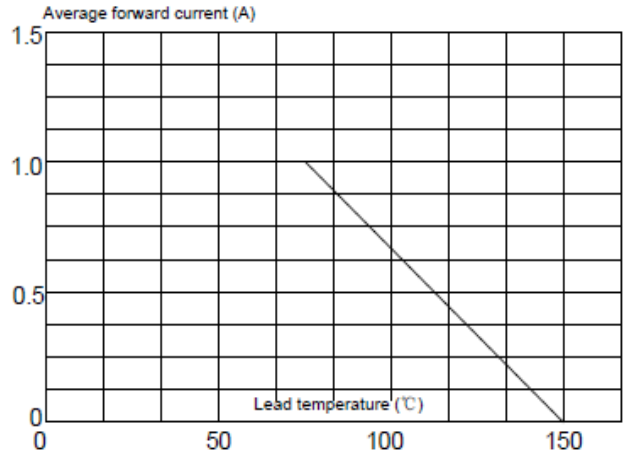


FIG.4: Forward current derating curve



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