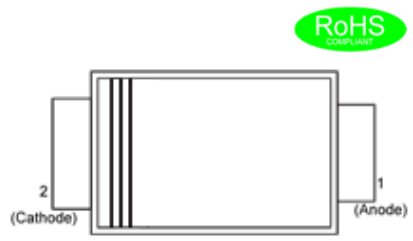
RS1000FL~RS1010FL

FAST RECOVERY RECTIFIER

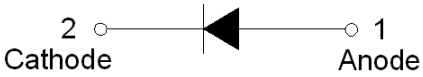
Rev.5.0

DESCRIPTION

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



SOD-123FL



Symbol

MECHANICAL DATA

- ✧ Case: SOD-123FL, molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.016 gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

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

Parameter		Symbol	RS1000 FL	RS1001 FL	RS1002 FL	RS1004 FL	RS1006 FL	RS1008 FL	RS1010 FL	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	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_A=75℃		$I_{F(AV)}$	1.0							A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	25							A
Maximum forward voltage@ I_F=1A		V_F	1.3							V
Maximum DC reverse current at rated DC blocking voltage	T_j=25℃	I_R	5							μA
	T_j=100℃		50							μA
Typical junction capacitance V_R=4.0V, f=1MHz		C_J	7							pF
Maximum reverse recovery time I_F=0.5A, I_R=1A, I_{rr}=0.25A		t_{rr}	150				250	500		ns
Operating junction and storage temperature range		T_j,T_{stg}	-55 to +150							℃

THERMAL RESISTANCES

Symbol	Parameter	RS1000 FL	RS1001 FL	RS1002 FL	RS1004 FL	RS1006 FL	RS1008 FL	RS1010 FL	Unit
$R_{th(j-a)}$	Junction to ambient (note1)	50							℃/W

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

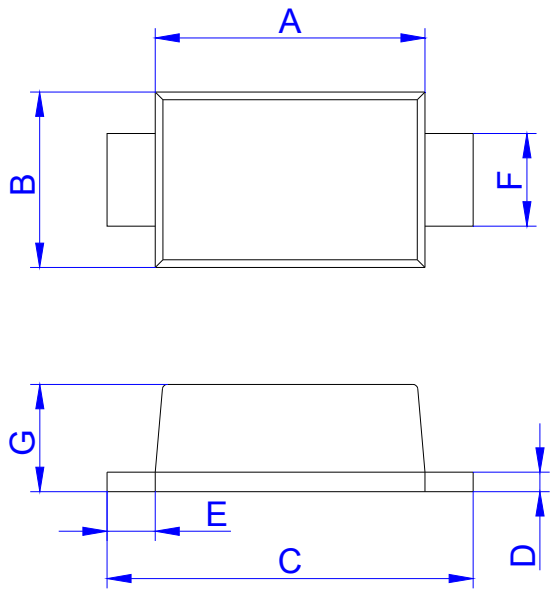
MARKING



R	Fast Recovery Rectifier
1	$I_{F(AV)}$=1.0A
M	V_{RRM}:1000V

A:50V B:100V D:200V G:400V J:600V K:800V M:1000V

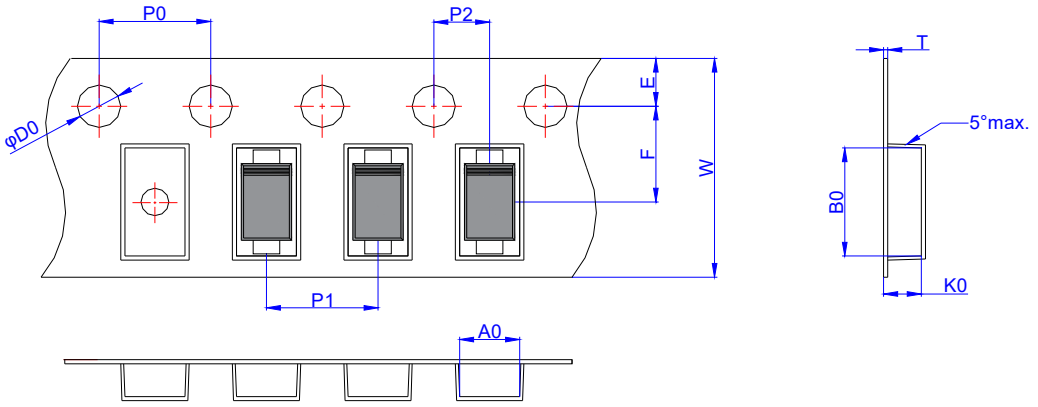
PACKAGE MECHANICAL DATA



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	3.60	4.00	0.142	0.157
D	0.10	0.30	0.004	0.012
E	0.50		0.020	
F	0.80	1.10	0.031	0.043
G	0.90	1.30	0.035	0.051

SOD-123FL

TAPE SPECIFICATION-SOD-123FL



Ref.	Dimensions	
	Millimeters	Inches
A0	2.15±0.1	0.086±0.004
B0	3.95±0.1	0.156±0.004
D0	1.55±0.1	0.061±0.004
E	1.75±0.1	0.069±0.004
F	3.50±0.1	0.138±0.004
K0	1.35±0.1	0.053±0.004
P0	4.00±0.1	0.157±0.004
P1	4.00±0.1	0.157±0.004
P2	2.00±0.1	0.079±0.004
T	0.25±0.1	0.010±0.004
W	8.00±0.1	0.315±0.004

PACKAGE INFORMATION-SOD-123FL

PART No.	REEL (PCS)	PER CARTON (PCS)	DESCRIPTION
RS1000FL~RS1010FL	3,000	150,000	7 inch reel pack

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics (25℃)

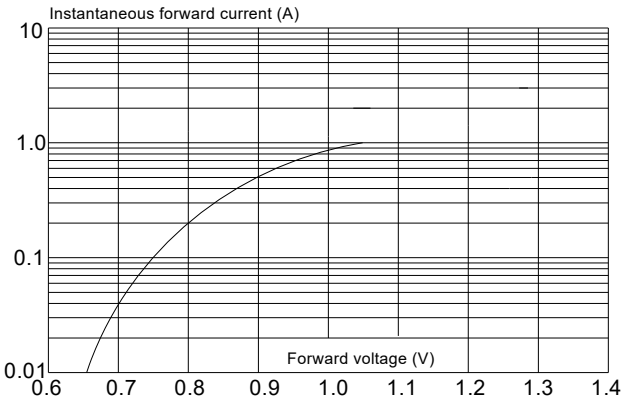


FIG.2: Typical reverse characteristics

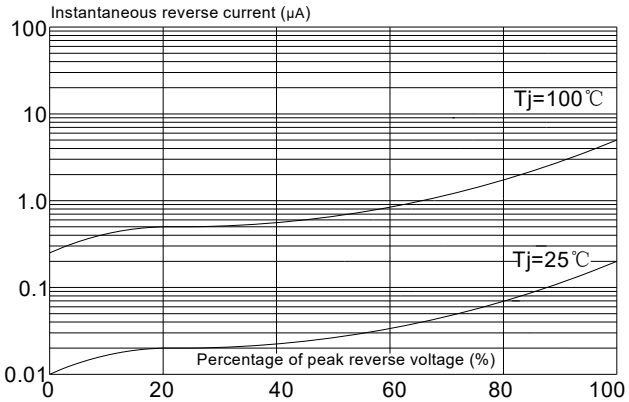


FIG.3: Maximum non-repetitive peak forward surge current

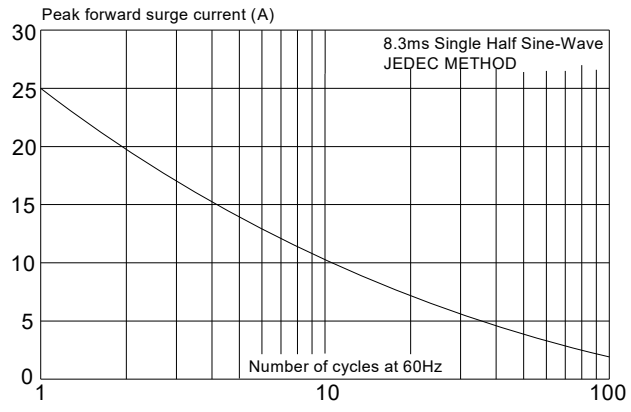
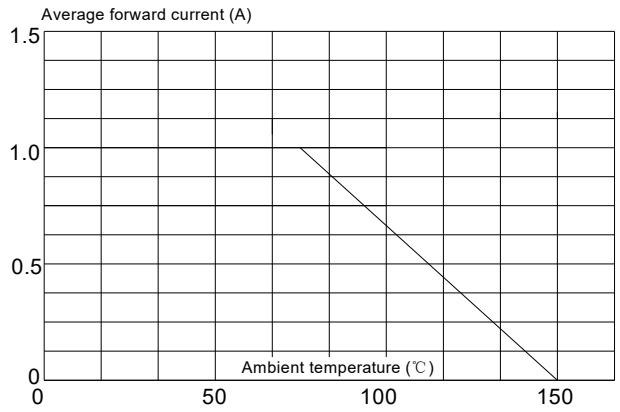


FIG.4: Forward current derating curve



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