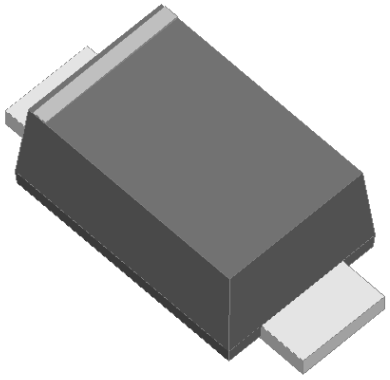
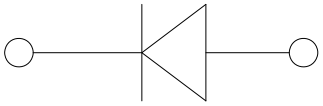
Surface Mount General Purpose Rectifier





Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Switching for general purpose
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Halogen Free

Typical Applications

For use in general purpose switching rectification of power supply, inverters, converters, and freewheeling diodes for consumer and telecommunication.

Mechanical Date

- **Package**: SOD-123FL
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	G1AH	G1BH	G1DH	G1GH	G1JH	G1KH	G1MH
Device marking code			G1AH	G1BH	G1DH	G1GH	G1JH	G1KH	G1MH
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, Resistance load, TL (FIG.1)	I_O	A	1.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	30						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			60						
Current Squared Time @1ms≤t<8.3ms Tj=25℃	I^2t	A^2s	3.735						
Typical Junction Capacitance @ Measured at 1MHz and Applied on 4.0VD.C	Cj	pF	8						
Storage temperature	T_{stg}	℃	-55 ~ +150						
Junction temperature	T_j	℃	-55 ~ +150						

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MIN	TYPICAL	MAX
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=1.0A	-	-	1.1
Reverse recovery time	TRR	ns	I_F=0.5A,I_R=1.0A, I_{rr}=0.25A	1000	1650	2000
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j =25℃	-	-	5
			T_j =125℃	-	-	50

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	G1AH	G1BH	G1DH	G1GH	G1JH	G1KH	G1MH
Typical Thermal resistance	$R_{\theta J-A}$	℃/W	85[1)]						
	$R_{\theta J-L}$		30[1)]						
	$R_{\theta J-C}$		25[1)]						

Note

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

■ Characteristics(Typical)

FIG.1: Io-TL Curve

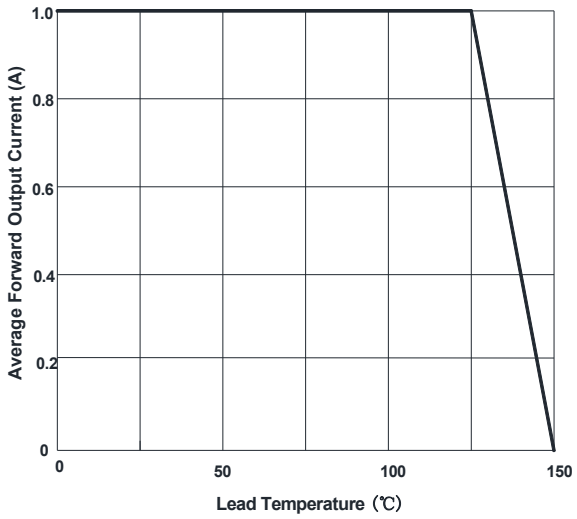


FIG.2: Forward Surge Current Capability

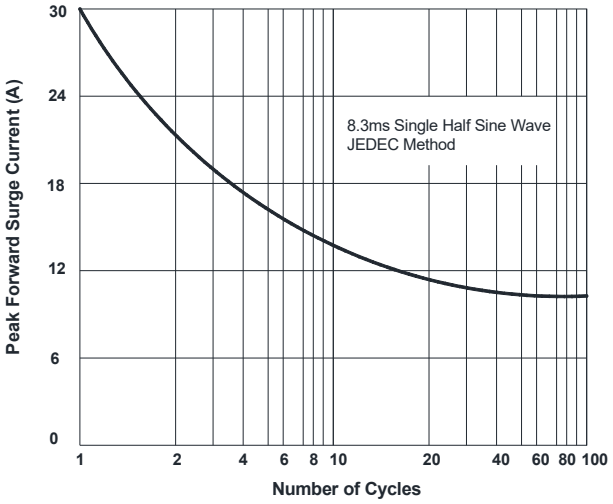


FIG.3: Typical Forward Voltage

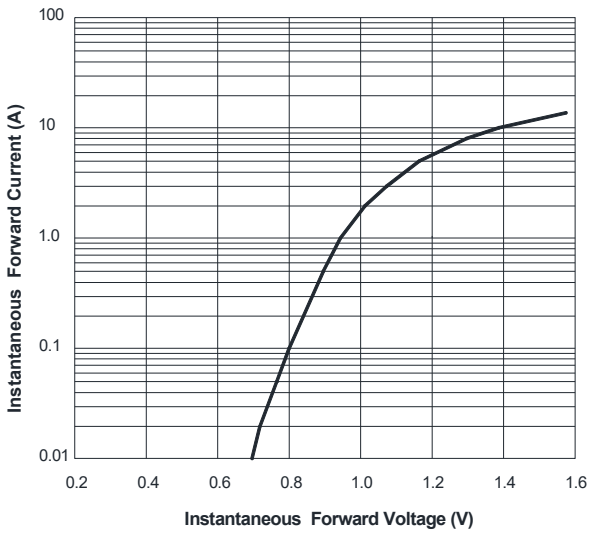


FIG.4: Typical Reverse Characteristics

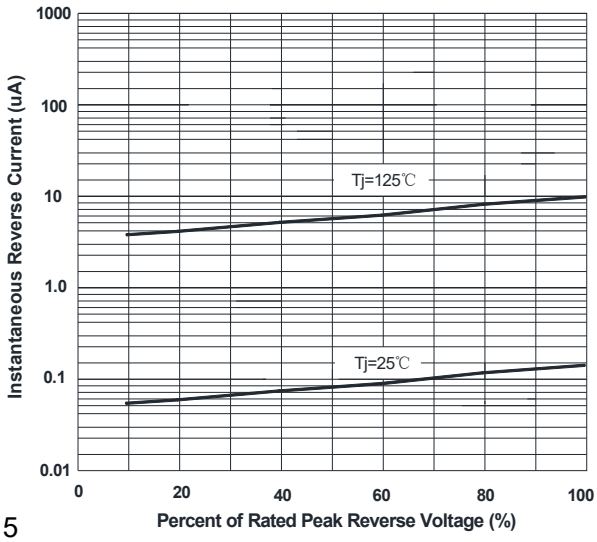
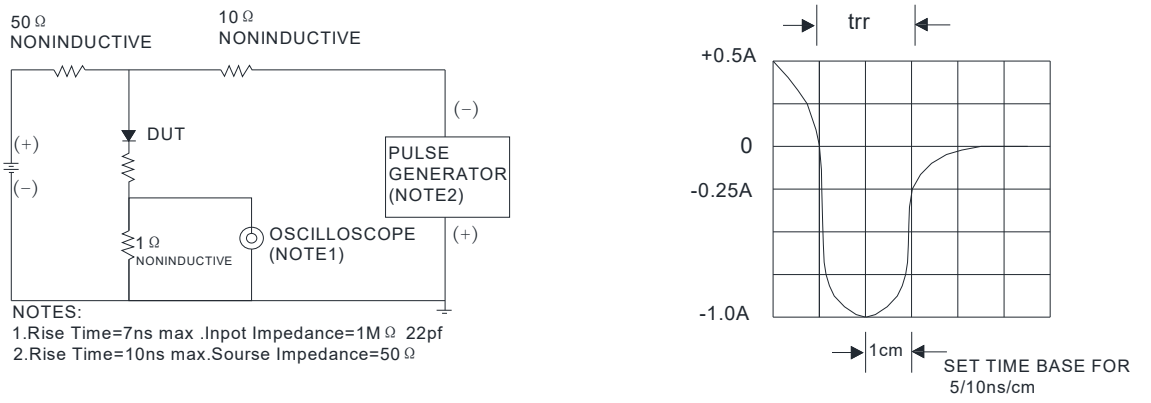


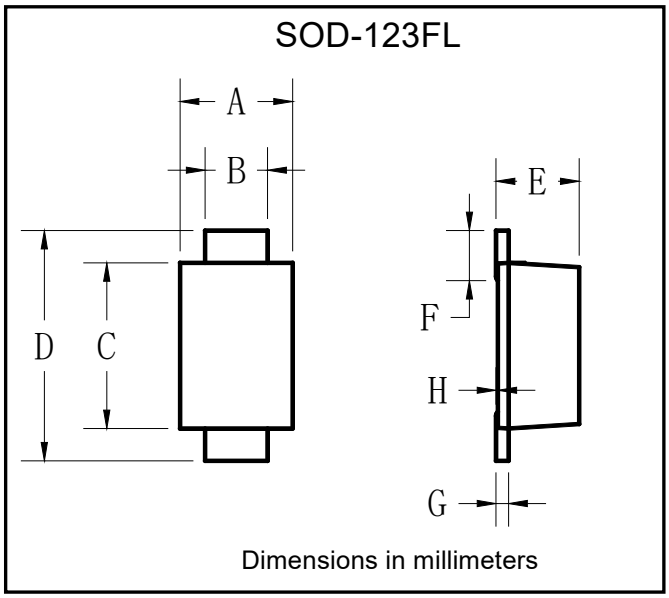
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■Ordering Information (Example)

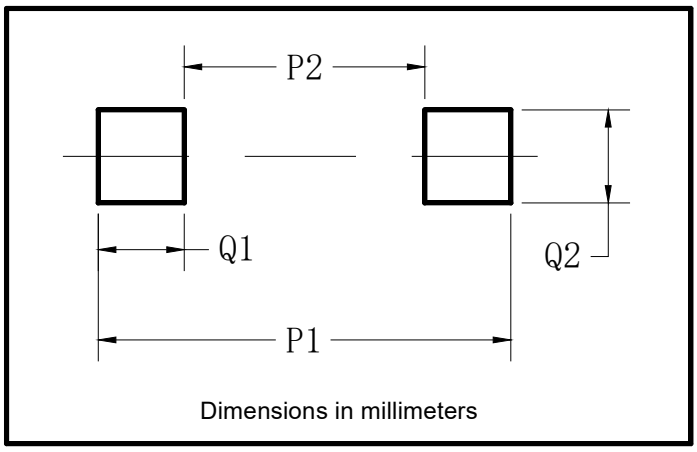
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
G1AH THRU G1MH	F1	Approximate 0.0169	3000	30000	120000	7” reel
G1AH THRU G1MH	F2	Approximate 0.0169	2500	25000	100000	7” reel
G1AH THRU G1MH	F3	Approximate 0.0169	10000	30000	210000	13” reel
G1AH THRU G1MH	F4	Approximate 0.0169	3000	54000	108000	7” reel
G1AH THRU G1MH	F5	Approximate 0.0169	10000	20000	160000	13” reel
G1AH THRU G1MH	F6	Approximate 0.0169	3000	12000	60000	7” reel

■ Outline Dimensions



SOD-123FL		
Dim	Min	Max
A	1.60	1.90
B	0.90	1.10
C	2.55	2.85
D	3.60	3.90
E	1.00	1.20
F	0.40	0.90
G	0.10	0.25
H	0.00	0.05

■ Suggested pad layout



SOD-123FL	
Dim	Millimeters
P1	3.90
P2	1.90
Q1	1.00
Q2	1.50

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