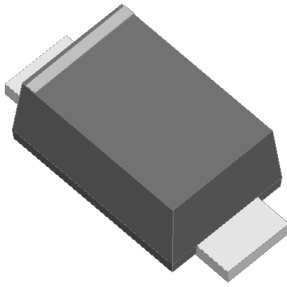


FEATURES

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Fast switching for fast recovery
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

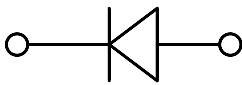


TYPICAL APPLICATIONS

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

MECHANICAL DATA

- **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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	F1A	F1B	F1D	F1G	F1J	F1K	F1M
Device marking code			F1A	F1B	F1D	F1G	F1J	F1K	F1M
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, Resistance load, T _a (FIG.1)	I _O	A	1.0						
Surge(non-repetitive)forward current @ 60Hz half-sine wave,1 cycle, T _J =25°C	I _{FSM}	A	30						
Storage temperature	T _{stg}	°C	-55 ~+150						
Junction temperature	T _j	°C	-55 ~+150						

ELECTRICAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	F1A	F1B	F1D	F1G	F1J	F1K	F1M
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =1.0A	1.3						
Maximum reverse recovery time	t _{rr}	ns	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	150			250		500	
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	µA	T _a =25°C	5						
			T _a =125°C	100						

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	UNIT	F1A	F1B	F1D	F1G	F1J	F1K	F1M
Thermal resistance	R _{θJ-A}	°C/W	68 ⁽¹⁾						
	R _{θJ-L}		20 ⁽¹⁾						

Note:

(1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm.

CHARACTERISTICS(TYPICAL)

FIG.1: I_o-T_L Curve

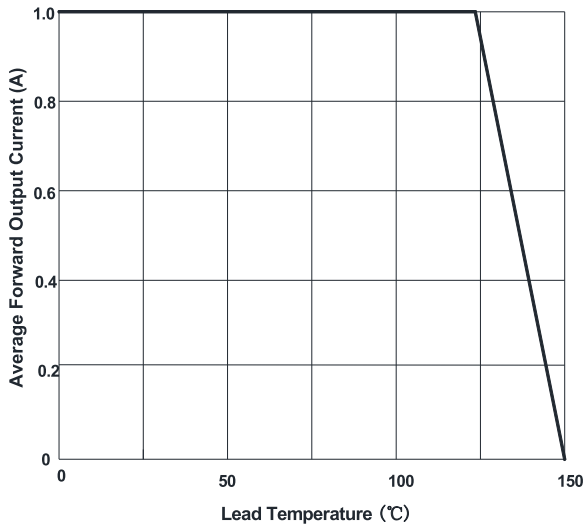


FIG.2: Forward Surge Current Capability

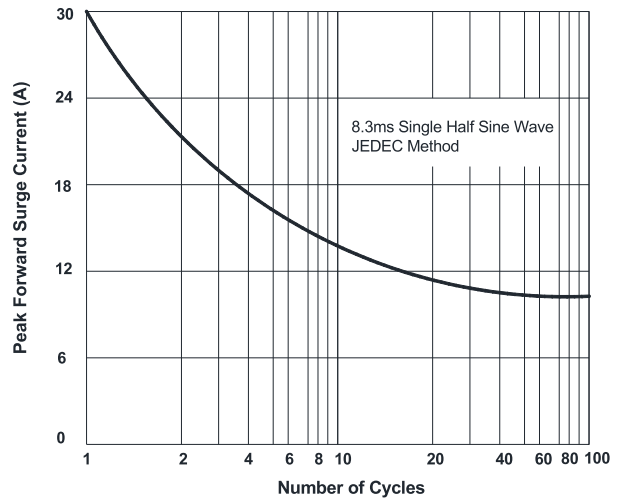


FIG.3: Typical Forward Voltage

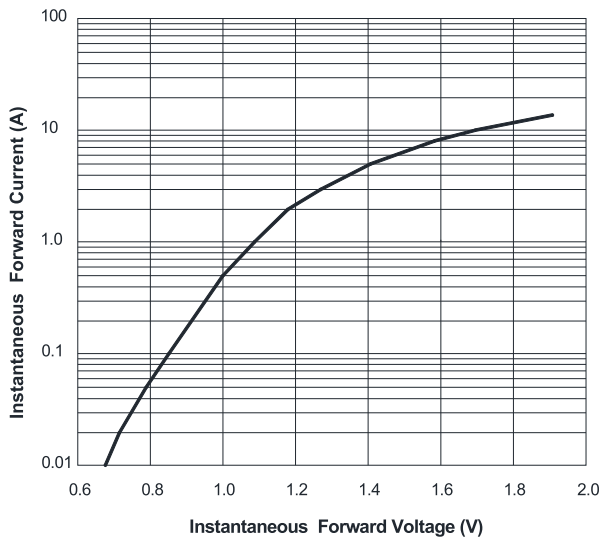


FIG.4: Typical Reverse Characteristics

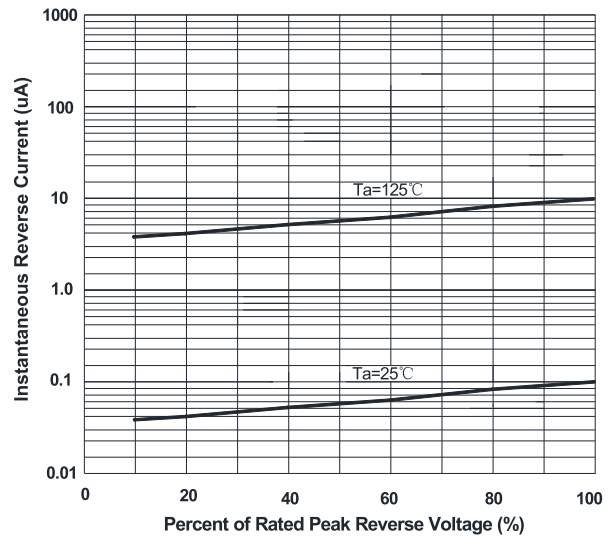
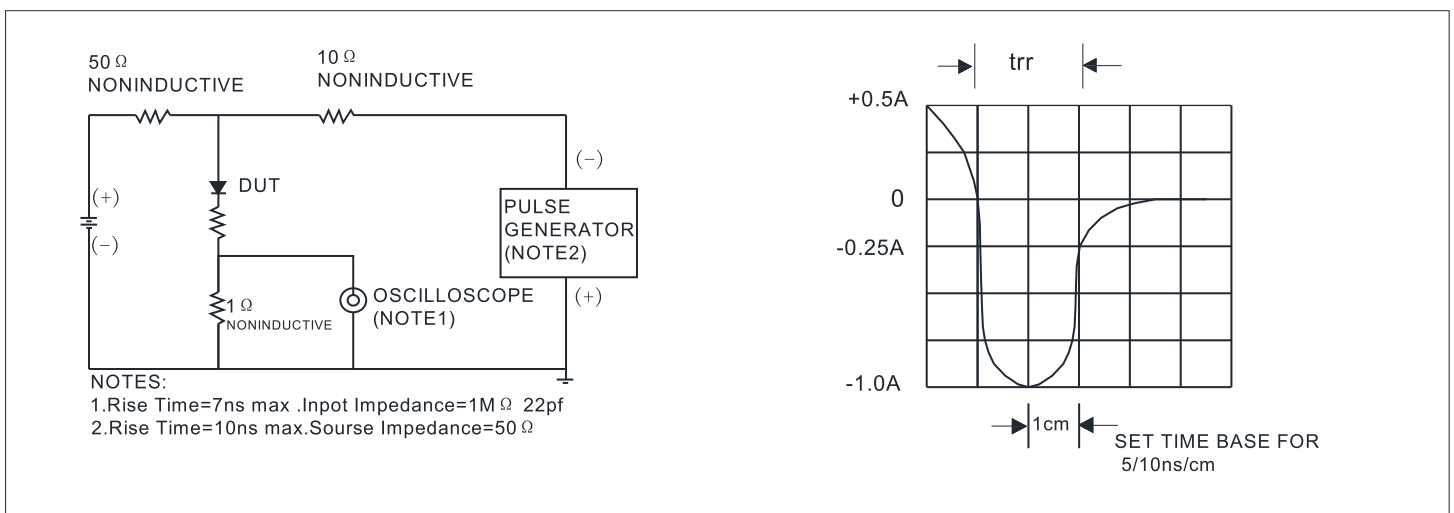


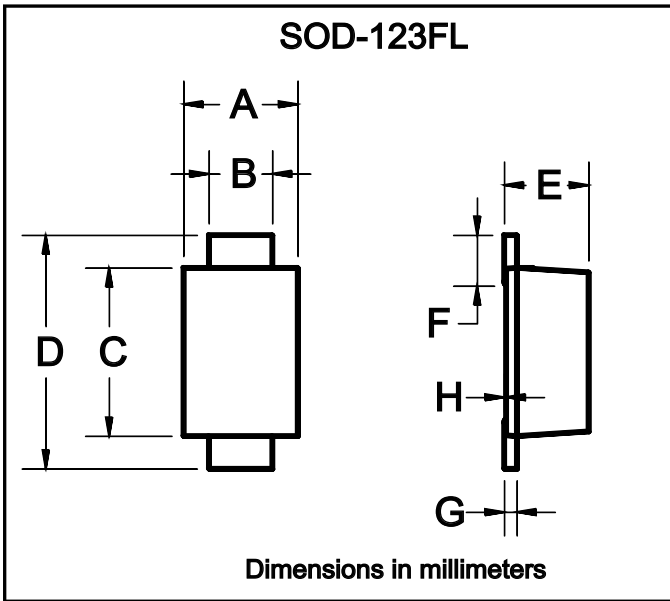
FIG.5: Diagram of circuit and testing wave form of reverse recovery time



PACKAGING INFORMATION

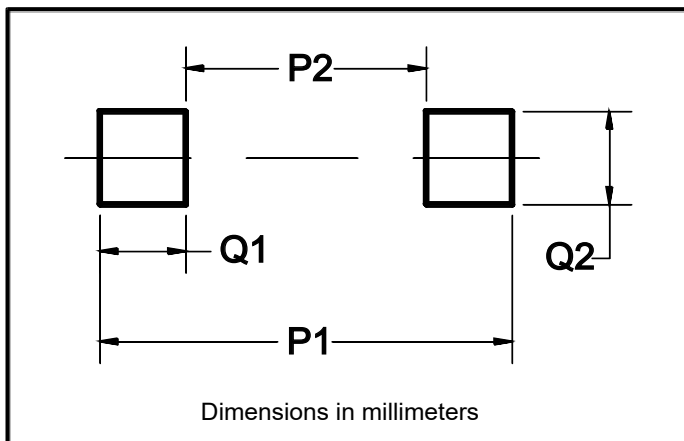
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
F1A THRU F1M	X07	Approximate 0.0169	3000	15000	120000	7" reel
F1A THRU F1M	Omit for Standard	Approximate 0.0169	10000	30000	210000	13" reel

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	0.02	0.05

SUGGESTED PAD LAYOUT



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