

### SURFACE MOUNT FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts    Forward Current - 1.0 Ampere

#### Features

- Glass passivated device
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:  
260°C/10 seconds,0.375”(9.5mm) lead length,  
5lbs.(2.3kg)tension

#### Mechanical Data

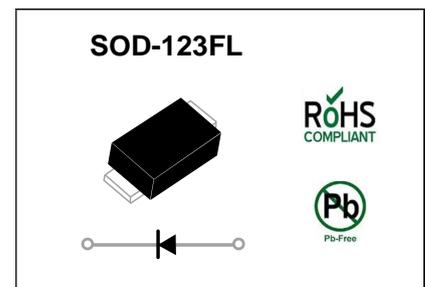
- Case:SOD-123FL molded plastic body over passivated chip
- Terminals: solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0007 ounce, 0.02 grams

#### Specification

##### Maximum Rating And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.



	SYMBOLS	FFM101 F1	FFM102 F2	FFM103 F3	FFM104 F4	FFM105 F5	FFM106 F6	FFM107 F7	UNITS
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 rectified current at $T_L=100^{\circ}C$ (NOTE 1)	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	25.0							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.3							V
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=125^{\circ}C$	$I_R$	5.0 50.0							$\mu A$
Maximum reverse recovery time (NOTE 2)	$t_{rr}$	150				250	500		ns
Typical junction capacitance (NOTE 3)	$C_J$	15							pF
Typical thermal resistance (NOTE 4)	$R_{\theta JA}$	95							$^{\circ}C/W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^{\circ}C$

- Note:** 1.Averaged over any 20ms period.  
2.Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .  
3.Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
4.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas

### Ratings and characteristic curves FFM101 thru FFM107

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE

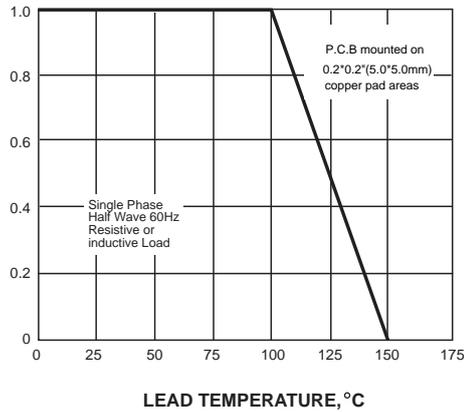


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

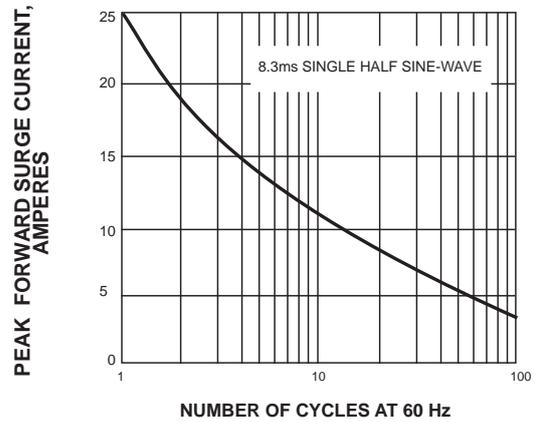


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

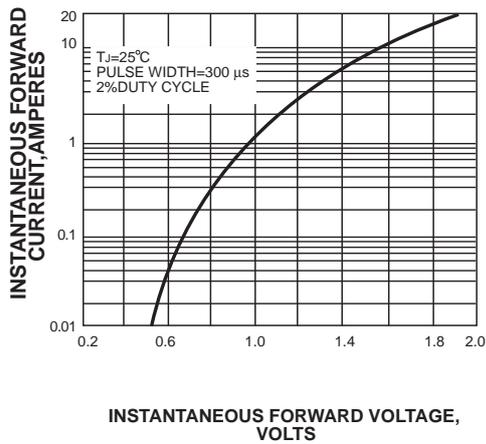


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

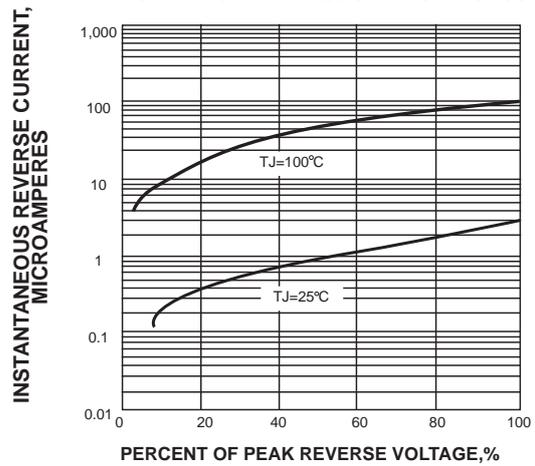
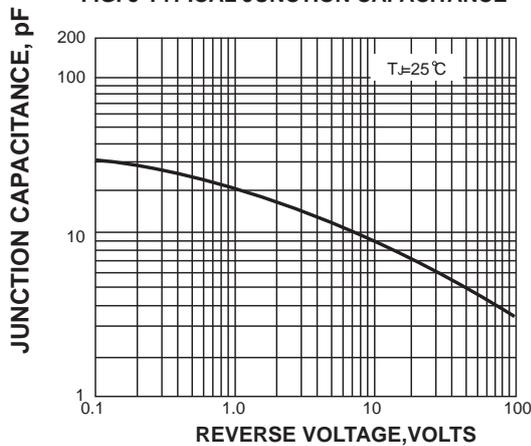


FIG. 5-TYPICAL JUNCTION CAPACITANCE



### Marking and packing illustration

#### 1、Marking



SYMBOL	Explanation
A	Product Name

#### 2、Packaging



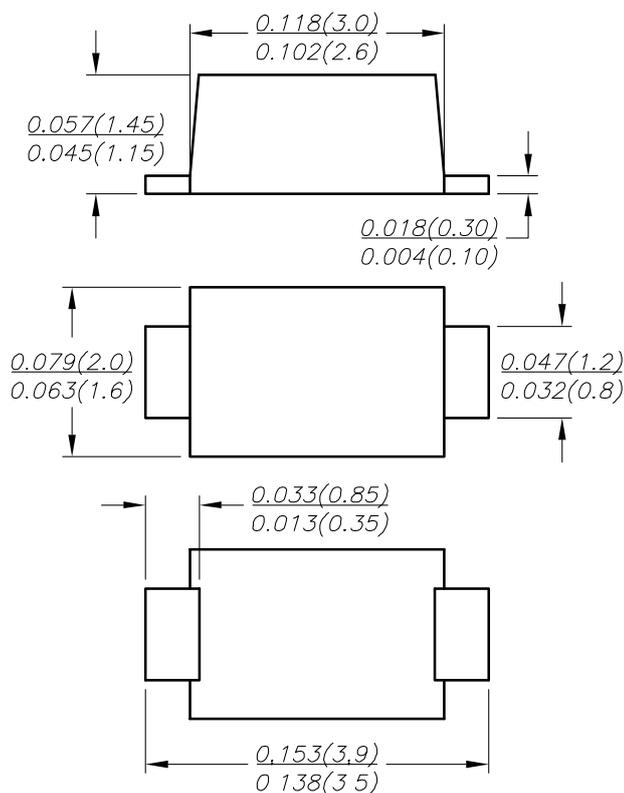
SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	SOD-123FL	ITEM	SYM BOL	SOD-123FL
Carrier width	A	2.1(0.083)Max	Carrier depth	K	1.60(0.063)Typ
Carrier length	B	4.0(0.157)Max	Punch hole pitch	P	4.00(0.157)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	177.8(7)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	50.0(1.969)Min	Overall tape thickness	T	0.25(0.098)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	8.15(0.321)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	10.5(0.413)Min
Punch hole position	H	3.50(0.138)Typ			

#### 3、Ordering Information

Part Number	Compliance	Case	Packaging
SSXX	Standard	SOD-123FL	3000/Tape & Reel

### Dimension

#### SOD-123FL



Dimensions in inches and (millimeters)

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