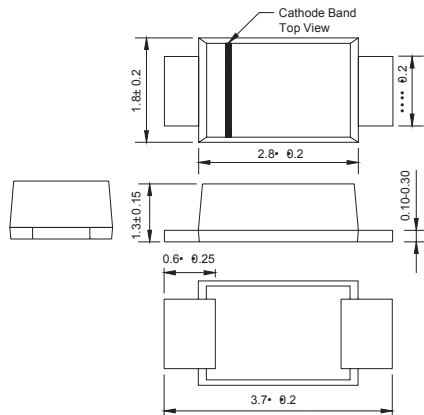# FFM101-M THRU FFM107-M

佑风电子
YFSEMI ELECTRON

SUFACE MOUNT FAST RECOVERY RECTIFIER

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

SOD-123FL

Cathode Band
Top View

1.8± 0.2

θ.2

2.8• θ.2

1.3±0.15

0.10-0.30

0.6• θ.25

3.7• θ.2

Dimensions in millimeters

FEATURES

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

MECHANICAL DATA

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
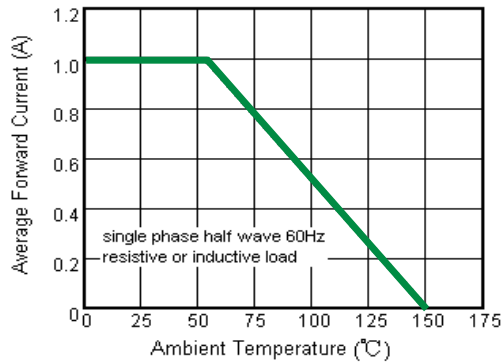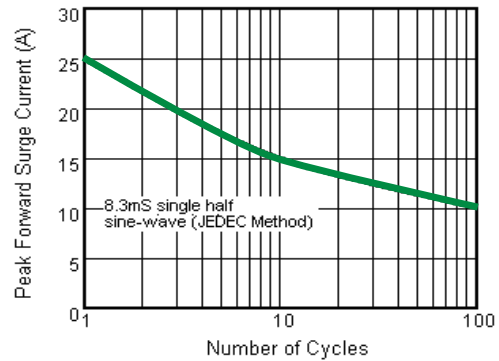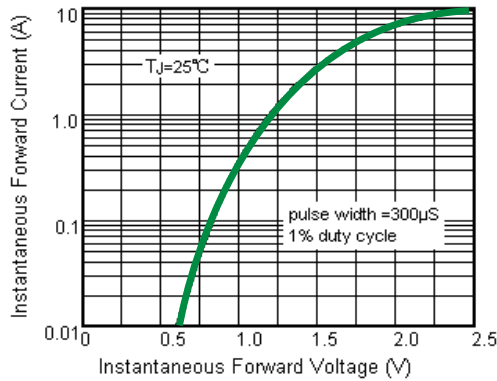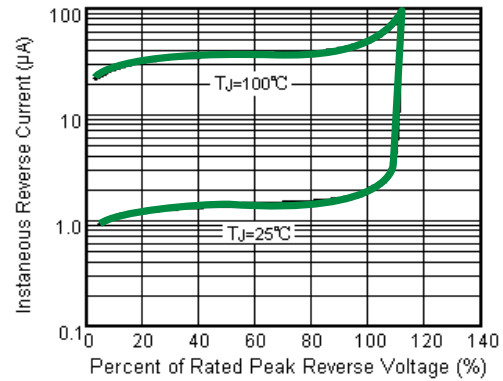Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	FFM101-M F1	FFM102-M F2	FFM103-M F3	FFM104-M F4	FFM105-M F5	FFM106-M F6	FFM107-M F7	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at T_A=65℃ (NOTE 1)	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T_L=25℃	I_{FSM}	25.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.3							Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=125℃	I_R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 2)	trr	150				250	500		ns
Typical junction capacitance (NOTE 3)	C_J	15							pF
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							℃

Note: 1.Averaged over any 20ms period.
2.Measured with IF=0.5A, IR=1A, Irr=0.25A.
3.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

FIG.1 Forward Current Derating Curve

Average Forward Current (A) vs Ambient Temperature (℃)

single phase half wave 60Hz
resistive or inductive load

Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

Peak Forward Surge Current (A) vs Number of Cycles

8.3mS single half
sine-wave (JEDEC Method)

Fig.3 Typical Instantaneous Forward Characteristics

Instantaneous Forward Current (A) vs Instantaneous Forward Voltage (V)

$T_J=25℃$

pulse width =300µS
1% duty cycle

Fig.4 Typical Reverse Characteristics

Instanteous Reverse Current (µA) vs Percent of Rated Peak Reverse Voltage (%)

$T_J=100℃$

$T_J=25℃$

Fig.5 Typical Junction Capacitance

Junction Capacitance (pF) vs Reverse Voltage (V)

$T_J=25℃$