

FRONTIER  
ELECTRONICS CO., LTD.

*Prosperity Dielectrics Co., Ltd.*

**HIGH VOLTAGE FAST RECOVERY RECTIFIER**

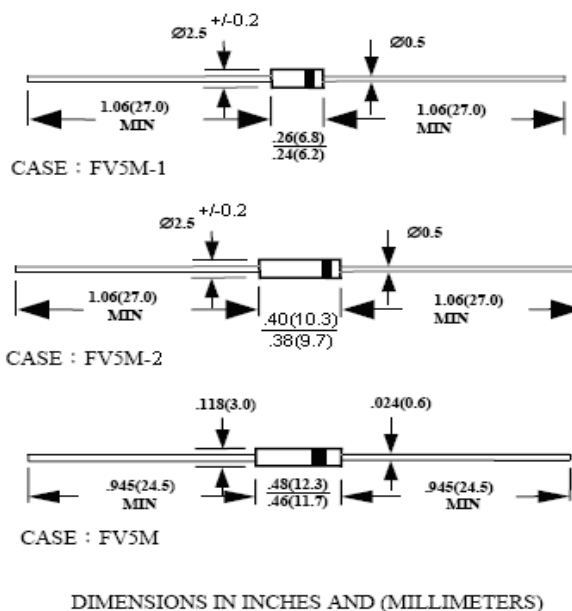
**FV5M-04-LF  
THRU  
FV5M-24-LF**

#### FEATURES

- FOR COLOR TV RECEIVERS / MONITORS  
TRIPLER CIRCUIT, DOUBLER CIRCUIT, SINGLE CIRCUIT.  
MULTSTAGE SINGULAR FLYBACK TRANSFORMER.
- DIFFUSED-JUNCTION
- EXCELLENT HIGH TEMPERATURE OUTPUT  
CHARACTERISTICS
- LEAD FREE

#### MECHANICAL DATA

- CASE : TRANSFER MOLDED
- LEADS : SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY : CATHODE INDICATED BY COLOR BAND
- WEIGHT : FV5M-1 0.17GRAMS  
FV5M-2 0.26 GRAMS  
FV5M 0.35GRAMS



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED

SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD.

FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	-04 -LF	-05 -LF	-06 -LF	-08 -LF	-10S -LF	-12S -LF	-14 -LF	-16 -LF	-18 -LF	-20 -LF	-22 -LF	-24 -LF	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	4000	5000	6000	8000	10000	12000	14000	16000	18000	20000	22000	24000	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	2800	3500	4200	5600	7000	8400	9800	11200	12600	14000	15400	16800	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	4000	5000	6000	8000	10000	12000	14000	16000	18000	20000	22000	24000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .375" (9.5mm) LEAD LENGTH AT $T_A=55^\circ\text{C}$	$I_O$	5												mA
PEAK FORWARD SURGE CURRENT	$I_{FSM}$	0.5												A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	$C_J$	1.0												PF
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 40 TO + 120												$^\circ\text{C}$
OPERATING TEMPERATURE RANGE	$T_{OP}$	- 40 TO + 120												$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

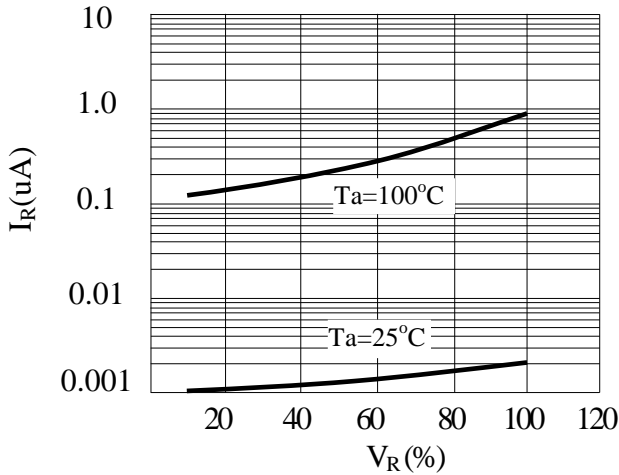
CHARACTERISTICS	SYMBOL	-04 -LF	-05 -LF	-06 -LF	-08 -LF	-10S -LF	-12S -LF	-14 -LF	-16 -LF	-18 -LF	-20 -LF	-22 -LF	-24 -LF	UNITS
MAXIMUM FORWARD VOLTAGE AT 10mA DC	$V_F$	12.0	16.0	20.0	25.0	36.0	45.0	42.5	50.0	55.0	62.5	75.0		V
MAXIMUM REVERSE CURRENT AT 25°C	$I_R$	5												$\mu\text{A}$
MAXIMUM REVERSE RECOVERY TIME AT 25°C (NOTE 2)	$T_{RR}$	100												nS
PACKAGE		FV5M-1				FV5M-2				FV5M				

NOTE : 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

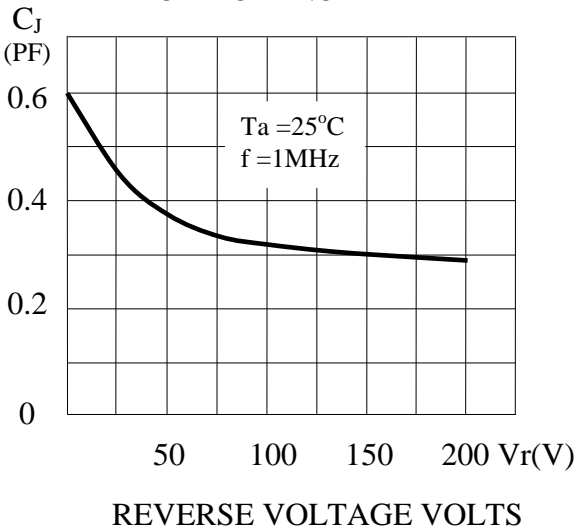
2. REVERSE RECOVERY TEST CONDITIONS:  $I_F=2\text{mA}$ ,  $I_R=4\text{mA}$ ,  $I_{RR}=1\text{mA}$

# RATINGS AND CHARACTERISTIC CURVES FV5M-04-LF THRU FV5M-24-LF

**FIG. 1 TYPICAL REVERSE CHARACTERISTICS**



**FIG. 2 TYPICAL JUNCTION CAPACITANCE**



**FIG. 3 TYPICAL DISTRIBUTION OF REVERSE RECOVERY TIME**

