



图 为:-8KV,  
63X31X17.5

- HIGH STABILITY 10PPM/HR
- LOW NOISE 10PPM
- ULTRA LOW TEMPERATURE COEFFICIENT 25PPM/°C
- SIX-SIDED SHIELDED
- EXTERNAL POTENTIOMETER OR AN EXTERNAL VOLTAGE REFERENCE
- CUSTOMIZATION AVAILABLE

## INTRODUCTION

Wisman's MFA series are high voltage 0.5 to 2 Watt micro-modules that provide output voltages ranging from 3KV to 10KV. MFA series are a compact, Ultra low noise 10ppm, High stability 10ppm/Hr, Ultra low Temperature Coefficient 10ppm/Hr, Six-sided shielded. All models are provided with external voltage reference programming, monitoring, Arc, short circuit and overload protection.

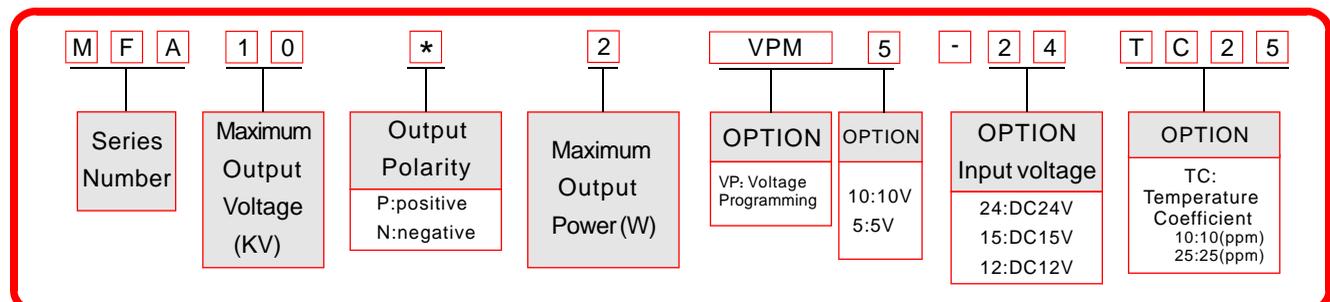
## TYPICAL APPLICATIONS

Mass spectrometry, Photomultiplier Tubes (PMT), Solid state detectors, Piezo crystal devices, Ultrasonic transducers, Microchannel plates (MCP), Spectroscopy, Scintillation counters, Electron multiplier Detectors, Nuclear Instruments, Electrophoresis, Semiconductor Testing, DNA sequencing, Radiation counter, Electron Beam and Ion Beam, Electrostatic chuck, High voltage bias, Hipot Testing, Provides power to the pulse power, Precision Lenses, Image Intensifiers, Semiconductor Testing, Medical, chemical Applications, Science, Laboratory Applications, Industrial applications.

## MFA SELECTION TABLE

KV	mA	P(W)	型号	KV	mA	P(W)	型号	KV	mA	P(W)	型号
3	0.17	0.5	MFA0.1*0.5	6	0.08	0.5	MFA0.5*0.5	8	0.06	0.5	MFA1.1*0.5
	0.33	1	MFA0.1*1		0.17	1	MFA0.5*1		0.13	1	MFA1.1*1
	0.67	2	MFA0.1*2		0.33	2	MFA0.5*2		0.25	2	MFA1.1*2
4	0.125	0.5	MFA0.2*0.5	6.5	0.08	0.5	MFA0.6*0.5	9	0.5	0.5	MFA1.25*0.5
	0.25	1	MFA0.2*1		0.15	1	MFA0.6*1		0.11	1	MFA1.25*1
	0.5	2	MFA0.2*2		0.30	2	MFA0.6*2		0.22	2	MFA1.25*2
5	0.1	0.5	MFA0.3*0.5	7	0.07	0.5	MFA0.8*0.5	10	0.05	0.5	MFA1.5*0.5
	0.2	1	MFA0.3*1		0.14	1	MFA0.8*1		0.10	1	MFA1.5*1
	0.4	2	MFA0.3*2		0.28	2	MFA0.8*2		0.20	2	MFA1.5*2

## MFA SELECTION EXAMPLE



## MFA SPECIFICATIONS

PARAMETER	DESCRIBE
Input Voltage	15V ± 2% DC, 450mA MAX. OPTION 12VDC, 24VDC.
Output	3KV, 4KV, 5KV, 6KV, 6.5KV, 8KV, 9KV, 10KV.
Stability	0.001%/hour, 0.01%/8hour after 1/2 hour warm-up.
Temperature Coefficient	25ppm per °C
Ripple	0.001% p-p of maximum output voltage.
Voltage Programming	By external voltage control (Vcon-in) 0 to 5 Vdc. Z <sub>in</sub> =100KΩ.
Voltage Line Regulation	±0.001% for ±10% change in input voltage.
Voltage Load Regulation	0.001% of MAX output voltage, no load to full load.
Operating Temperature	0°C to +50 °C operational.
Storage Temperature	-40 to +85°C
Humidity	0% to 90% RH, non-condensing.
Cooling	Convection cooled.
Dimensions	3.00" H x 1.25" W x 0.68" (76.20mm x 31.75mm x 17.34mm).
Weight	65g

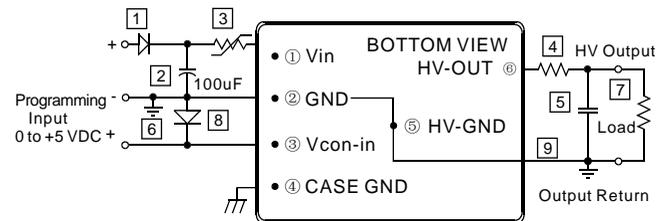
A MICRO-MODULES

## MFA PIN INFORMATION

PIN	DESCRIPTION
1	+15Vdc ± 1Vdc
2	Power/Signal GND
3	Control Voltage Input
4	Case GND
5	High Voltage GND
6	High Voltage Output

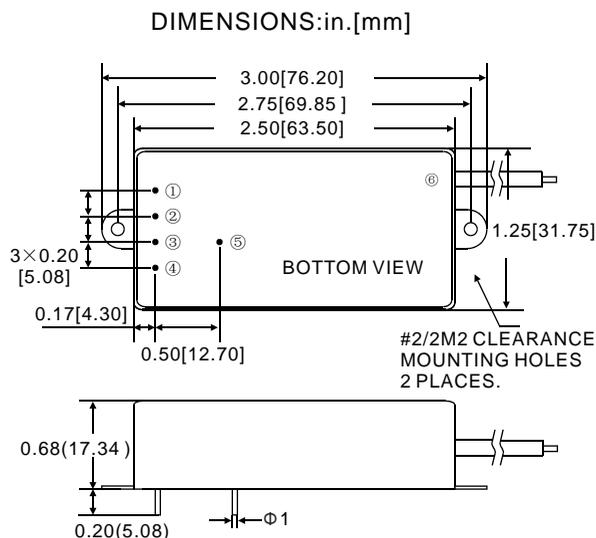
## MFA CONNECTION DIAGRAM

Improved Performance and Protection



- Diode provides reverse polarity protection.
- Capacitor reduces ripple.
- Resettable fuse provides indefinite short circuit protection. *Selection depends on model used, load characteristics and operating temperature range.*
- Series resistance increases arc protection and reduces ripple (when used with an output capacitor).
- Capacitor reduces ripple.
- IMPORTANT:** Keep input, Programming and Output return paths separate to eliminate ground loop accuracy errors.
- Conformal coating recommended on all exposed high voltage conductors.
- Diode provides protection against negative programming voltage or negative transient spike.
- Output Circuit return to HV return (pin 5) on MFA5-MAF10.

## MFA DIMENSIONS



## CHARACTERISTICS OF OUTPUT VOLTAGE SETTING

