



## MASTER INSTRUMENT CORPORATION

### HIGH VOLTAGE SILICON RECTIFIER HVM5-HVM12

VOLTAGE RANGE 5000 to 12000 Volts  
Forward Current 0.3-0.5 Amperes

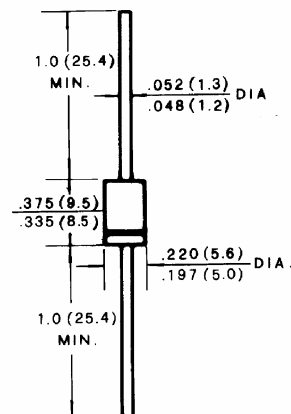
#### FEATURES

- Low leakage
- High surge capability
- High current capability
- High temperature soldering guaranteed:  
200 °C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs.  
(2.3kg) tension.

#### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant.
- Polarity: Color band denotes cathode end .
- Lead: Plated axial lead solderable per MIL-STD-202E method  
208C
- Mounting Position: Any.
- Weight: 0.05 ounce, 1.43 gram (DO-27)

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DO-27

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Dimension in inches and (millimeters)

		SYMBOLS	HVM5	HVM8	HVM10	HVM12	UNITS
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	5000	8000	10000	12000	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	3500	5600	7000	8400	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	5000	8000	10000	12000	Volts
Maximum Average Forward Rectified Current,0.375” (9.5mm) Lead length at T <sub>A</sub> =50°C		I <sub>(AV)</sub>	350				mAmps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I <sub>FSM</sub>	40				Amps
Maximum Instantaneous Forward Voltage Drop at .05A/0.2A		V <sub>F</sub>	3.5	7.0	9.0	9.5	Volts
Maximum DC Reverse Current at rated DC blocking voltage at	T <sub>A</sub> =25°C	I <sub>R</sub>	5.0				μAmps
	T <sub>A</sub> =100°C		100				
Maximum Full Load Reverse Current ,full cycle average 0.375” (9.5mm) lead length at T <sub>L</sub> =75°C		IR(AV)	75				μA
Operating and Storage Temperature Range		T <sub>J</sub> , T <sub>STG</sub>	-65 to +150				°C
NOTES:							



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### RATINGS AND CHARACTERISTIC CURVES:

#### RATINGS AND CHARACTERISTIC CURVES HVM5000THRU HVM12000

