

# DC COMPONENTS CO., LTD.

## RECTIFIER SPECIALISTS

HVM5 THRU HVM16

# TECHNICAL SPECIFICATIONS OF HIGH VOLTAGE ASSEMBLIED RECTIFIER VOLTAGE RANGE - 5000 to 16000 Volts CURRENT - 0.35 Ampere

#### **FEATURES**

- \* Low cost
- \* Low leakage
- \* Isolated case
- \* Surge overload rating 50 amperes peak
- \* Low forward voltage drop

#### MECHANICAL DATA

\* Case: Molded plastic

\* Epoxy: UL 94V-0 rate flame retardant

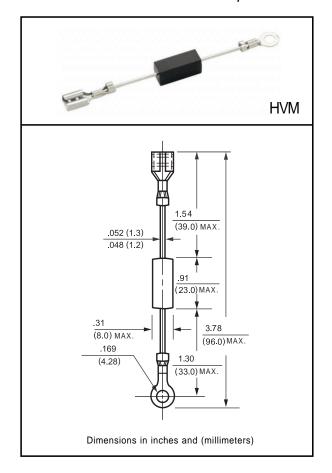
\* Lead: MIL-STD-202E, Method 208 guaranteed

\* Polarity: Color band denotes cathode end

\* Mounting position: Any

#### 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%.



	SYMBOL	HVM5	HVM8	HVM10	HVM12	HVM14	HVM15	HVM16	UNITS
Maximum Recurrent Peak Reverse Voltage	Vrrm	5	8	10	12	14	15	16	K Volts
Maximum RMS Voltage	VRMS	3.5	5.6	7.0	8.4	9.8	10.5	11.2	K Volts
Maximum DC Blocking Voltage	VDC	5	8	10	12	14	15	16	K Volts
Maximum Average Forward Rectified Current at TA = 50°C	lo	350							mAmps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	50							Amps
Maximum Instantaneous Forward Voltage at 0.35A DC	VF	8.0 13.5 14.0						Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	lr	5.0							uAmps
Operating and Storage Temperature Range	ТJ,Тsтg	-20 to + 135							۰C

NOTES:1. Enough heat sink must be considered in application.

2. Suffix "-Tox" (e.g.-T01,-T02,.....) for Terminal type.

## RA TING AND CHARACTERISTIC CURVES (HVM5 THRU HVM16)

FIG. 1 - TYPICAL FORWARD CURRENT **DERATING CURVE** 500 AVERAGE FORWARD CURRENT, (mA) Single Phase Half Wave 60Hz Inductive or 400 Resistive Load 300 200 100 0 0 100 50 150 175 AMBIENT TEMPERATURE, (°C)

FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

60

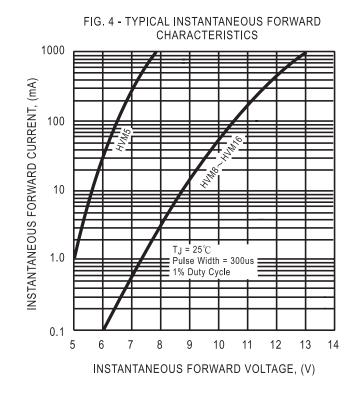
8.3ms Single Half Sine-Wave (JEDEC Method)

10

10

NUMBER OF CYCLES AT 60Hz

FIG. 3 - TYPICAL REVERSE CHARACTERISTICS 10 INSTANTANEOUS REVERSE CURRENT, (uA) 6 4 2 1.0 .6 .4 .2 TJ = 25℃ .1 .06 .04 .02 .01 0 20 40 60 80 100 120 140 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)





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