RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

HVM5 THRU HVM16

HIGH VOLTAGE ASSEMBLIED RECTIFIER

VOLTAGE RANGE 5000 to 16000 Volts CURRENT 0.35 Amperes

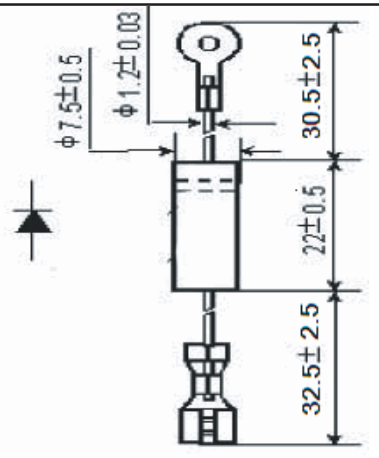
FEATURES

* Low cost
* Low leakage
* Isolated case
* Surge overload rating - 50 amperes peak
* Mounting position: Any
* Low forward voltage drop

MECHANICAL DATA

*** Epoxy : Device has UL flammability classification 94V-0**

HVM



Dimensions in millimeters

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%.

MAXIMUM RATINGS (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	HVM5	HVM8	HVM10	HVM12	HVM14	HVM15	HVM16	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	5	8	10	12	14	15	16	K Volts
Maximum RMS Voltage	V_{RMS}	3.5	5.6	7.0	8.4	9.8	10.5	11.2	K Volts
Maximum DC Blocking Voltage	V_{DC}	5	8	10	12	14	15	16	K Volts
Maximum Average Forward Rectified Current at T_A = 50°C	I_O	350							mAmps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							Amps
Operating and Storage Temperature Range	T_J,T_{STG}	-20 to + 150							°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	HVM5	HVM8	HVM10	HVM12	HVM14	HVM15	HVM16	UNITS
Maximum Instantaneous Forward Voltage at 0.35A DC	V_F	8.0	14.0						Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0							uAmps

NOTES:1. Enough heat sink must be considered in application.
2. Operating and Storage Temperature : -20°C to +150°C
3. Suffix " L " for Wire type.

2013-01

RATING AND CHARACTERISTIC CURVES (HVM5 THRU HVM16)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

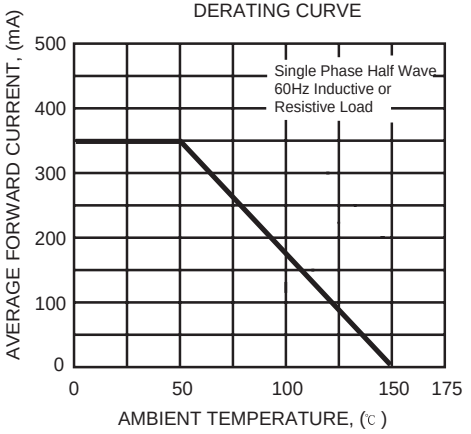


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

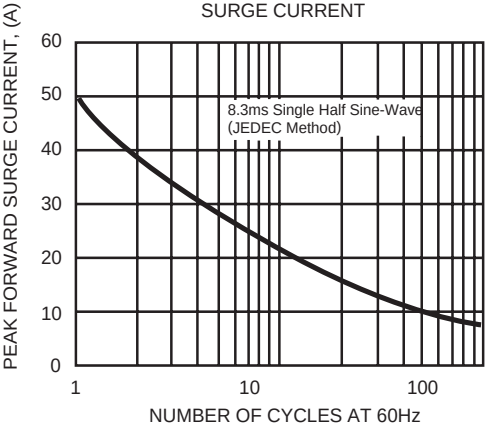


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

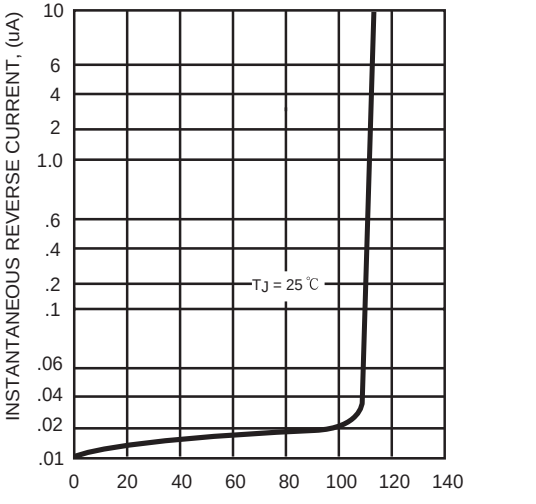
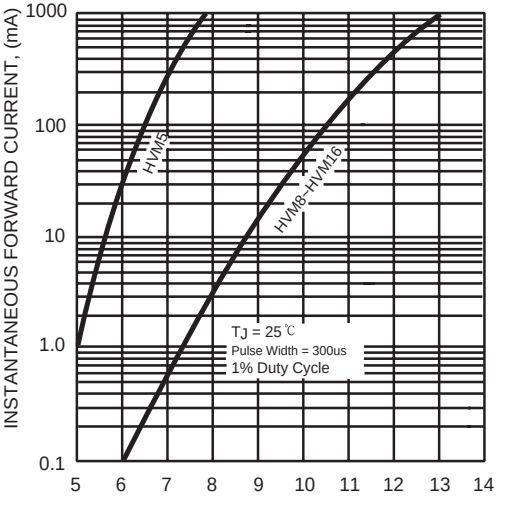


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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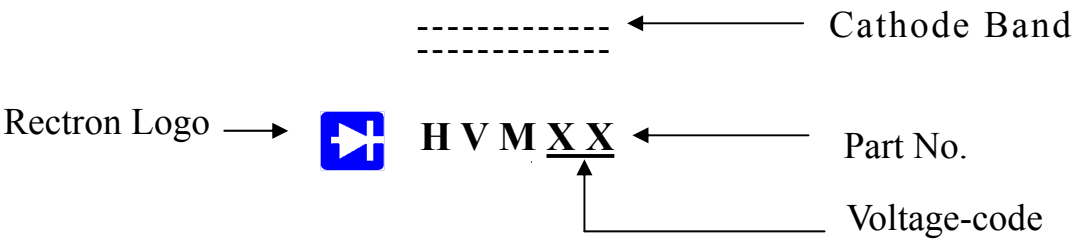
Attachment information about HVMXX

1. Internal Circuit

2. Marking on the body



5-------5000V 14-------14000V
8-------8000V 15-------15000V
10----10000V 16-------16000V
12----12000V

4. Items marked on the carton

CUSTOMER
TYPE
QUANTITY
LOT NO.
REMARK

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