

#### INTRODUCE:

HVGT high voltage axial lead rectifier assembly is made of high quality silicon wafer chip and high reliability epoxy resin sealing structure, and through professional testing equipment inspection qualified after to customers.

#### FEATURES:

1. High reliability design.
2. Very high voltage.
3. High frequency, Fast recovery.
4. Conform to RoHS and SGS.
5. Epoxy resin molded in vacuum Have anticorrosion in the surface.

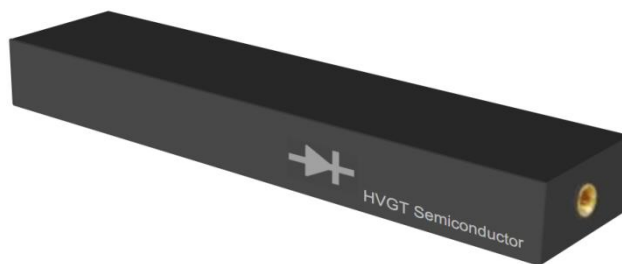
#### APPLICATIONS:

1. High voltage multiplier circuit
2. electrostatic precipitators.
3. General purpose high voltage rectifier.
4. Pulse rectifier circuit

#### MECHANICAL DATA:

1. Case: epoxy resin molding.
2. Terminal: screw holes.
3. Net weight: 90.0 grams (approx).

#### SHAPE DISPLAY:

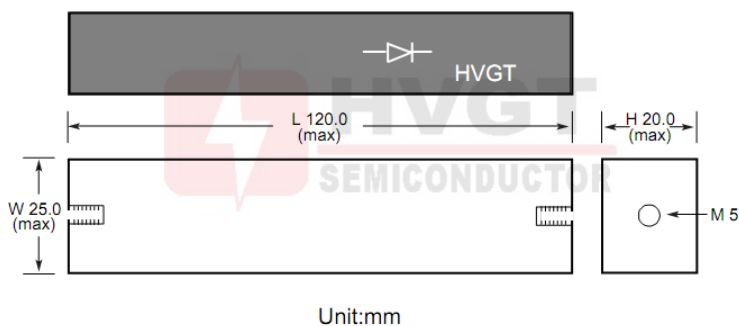


SIZE: (Unit:mm)

HVGT NAME: HVC-122520

#### HVC-122520 Series

Screw Holes M5



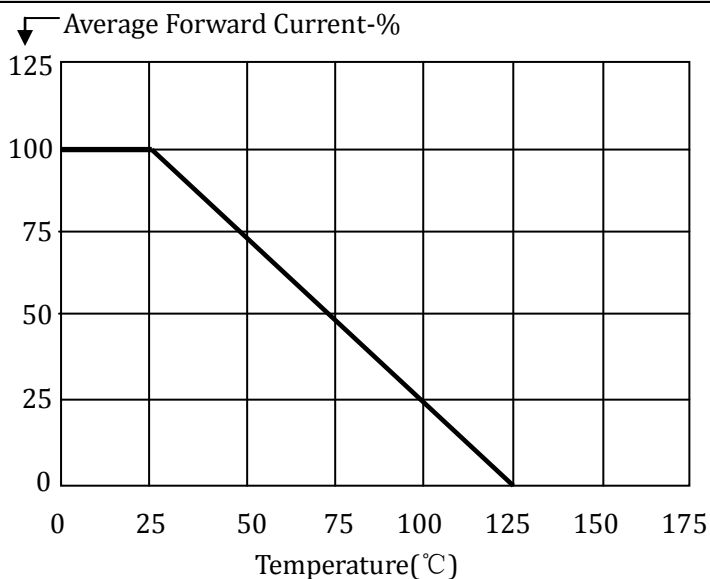
#### MAXIMUM RATINGS AND CHARACTERISTICS: (Absolute Maximum Ratings)

| Items                                | Symbols    | Condition                                      | Data Value | Units       |
|--------------------------------------|------------|------------------------------------------------|------------|-------------|
| Repetitive Peak Reverse Voltage      | $V_{RRM}$  | $T_A=25^{\circ}C$                              | 20         | kV          |
| Non-Repetitive Peak Reverse Voltage  | $V_{RSM}$  | $T_A=25^{\circ}C$                              | 24         | kV          |
| Average Forward Current Maximum      | $I_{FAVM}$ | $T_A=25^{\circ}C$                              | 0.5        | A           |
|                                      |            | $T_{OIL}=55^{\circ}C$                          | 0.5        | A           |
| Non-Repetitive Forward Surge Current | $I_{FSM}$  | $T_A=25^{\circ}C$ ; 50Hz Half-Sine Wave; 8.3ms | 15         | A           |
| Junction Temperature                 | $T_J$      |                                                | 125        | $^{\circ}C$ |
| Allowable Operation Case Temperature | $T_C$      |                                                | -40~+125   | $^{\circ}C$ |
| Storage Temperature                  | $T_{STG}$  |                                                | -40~+150   | $^{\circ}C$ |

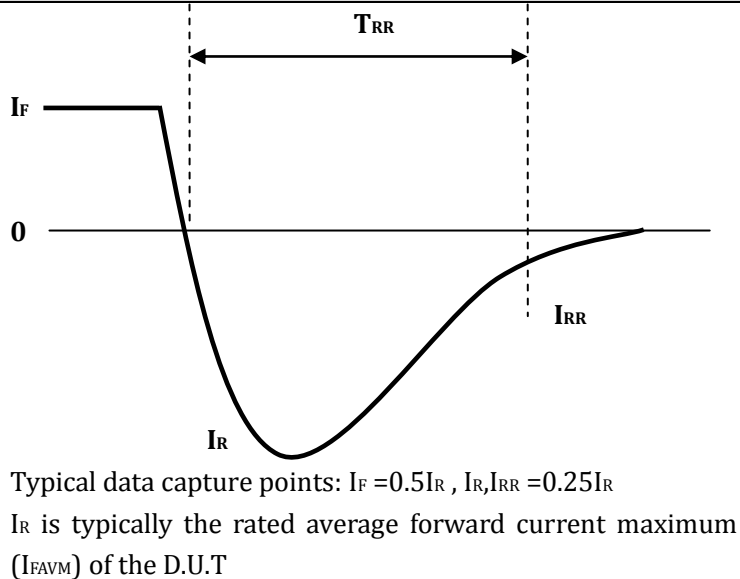
#### ELECTRICAL CHARACTERISTICS: $T_A=25^{\circ}C$ (Unless Otherwise Specified)

| Items                         | Symbols  | Condition                                                           | Data value | Units   |
|-------------------------------|----------|---------------------------------------------------------------------|------------|---------|
| Maximum Forward Voltage Drop  | $V_{FM}$ | at $25^{\circ}C$ ; at $I_{FAVM}$                                    | 28.8       | V       |
| Maximum Reverse Current       | $I_{R1}$ | at $25^{\circ}C$ ; at $V_{RRM}$                                     | 5.0        | $\mu A$ |
|                               | $I_{R2}$ | at $100^{\circ}C$ ; at $V_{RRM}$                                    | 50         | $\mu A$ |
| Maximum Reverse Recovery Time | $T_{RR}$ | at $25^{\circ}C$ ; $I_F=0.5I_R$ ; $I_R=I_{FAVM}$ ; $I_{RR}=0.25I_R$ | 75         | nS      |
| Junction Capacitance          | $C_J$    | at $25^{\circ}C$ ; $V_R=0V$ ; $f=1MHz$                              | --         | pF      |

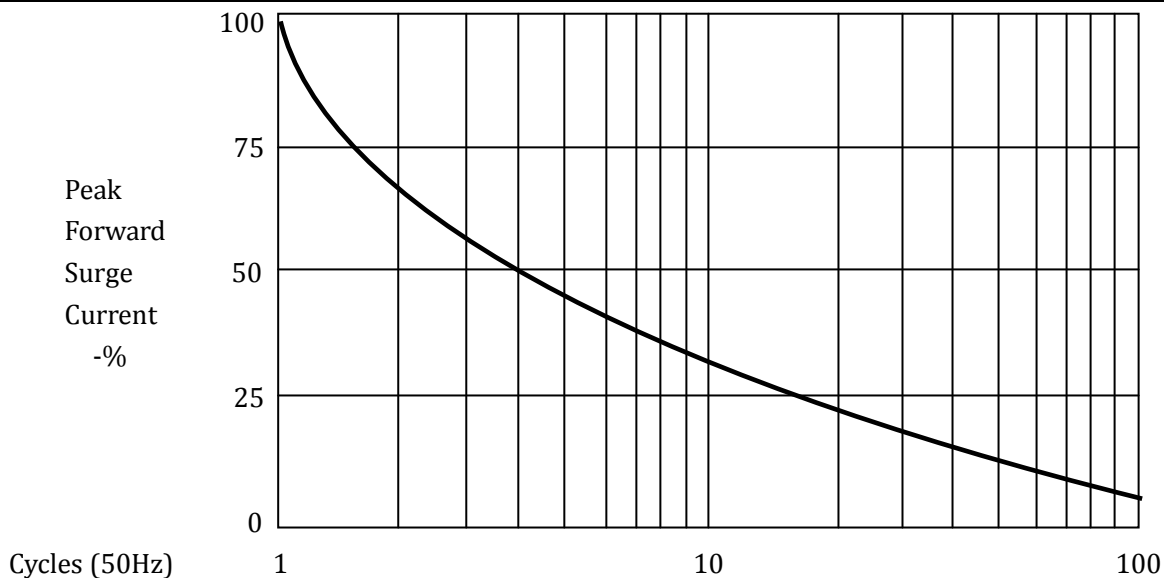
**Forward Current Derating Curve**



**Reverse Recovery Measurement Waveform**



**Non-Repetitive Surge Current**



**MARKING:**

| Type       | Code               | Cathode Mark                                                                          |
|------------|--------------------|---------------------------------------------------------------------------------------|
| AW005S200U | AW005S200U<br>HVGT |  |

**PART NUMBER NOTE:**

| Type            | Chip       | $I_{F(AV)}$ | Connecting end          | $V_{RRM}$  | $T_{RR}$                                          |
|-----------------|------------|-------------|-------------------------|------------|---------------------------------------------------|
| <b>A</b>        | <b>W</b>   | <b>005</b>  | <b>S</b>                | <b>200</b> | <b>U</b>                                          |
| Assembly Series | Wafer Chip | 0.5A        | L=Lead<br>S=Screw Holes | 20kV       | (U)75ns<br>(G)100ns<br>(D) Standard Recovery Time |