

INTRODUCE:

HVGT brand high voltage silicon rectifier diodes is made of high quality glass passivated chip and high reliability epoxy resin sealing structure, and through professional testing equipment inspection qualified after to customers.

FEATURES:

1. Design of glass passivation chip(GPP).
2. Fast recovery time.
3. J Lead or Gullwing Package Option.
4. Surface Mount Package.
5. Epoxy resin molded in vacuum.
6. Have anticorrosion in the surface.
7. ANSI/UL94 V-0 Rated Material.

APPLICATIONS:

1. Detecting equipment.
2. General purpose high voltage rectifier.
3. X-ray voltage doubling circuit.
4. Automotive Electronics.

REFERENCE SHAPE:



SMA-JS



SMA-GS



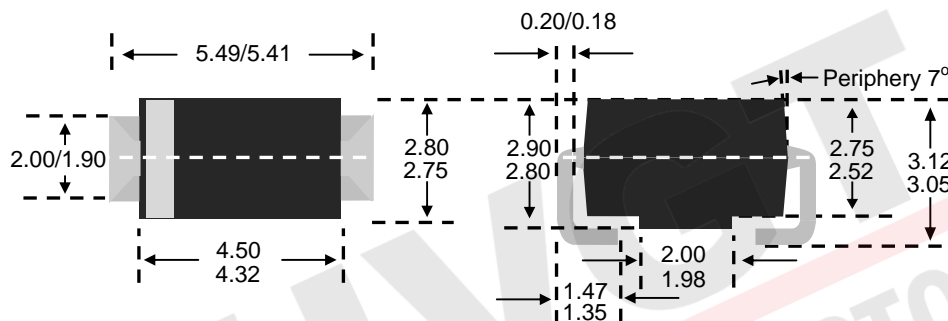
MECHANICAL DATA:

1. Case: epoxy resin molding.
2. Terminal: Surface mount welding.
3. Net weight: 0.09 grams (approx).

DRAWINGS: (Unit:mm)

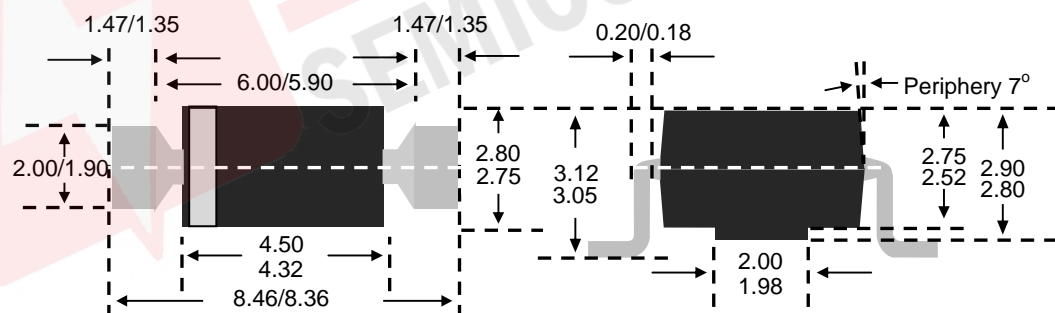
SMA-JS Series

SMA Lead



SMA-GS Series

SMA-G Lead



Maximum Ratings And Characteristics: (25°C ambient temperature unless stated otherwise.)

| HVGT Part Number | V _{RRM} kV | I _{FAVM1} mA | I _{FAVM2} mA | V _F V | I _R uA | I _{FSM} A | T _{RR} nS | C _J pF | R _{JL} °C/W |
|------------------|---------------------|-----------------------|-----------------------|------------------|-------------------|--------------------|--------------------|-------------------|----------------------|
| SMF2705JS | 5.0 | 270 | 140 | 8.5 | 0.5 | 10 | 75 | 4.5 | 32 |
| SMF2705GS | 5.0 | 270 | 140 | 8.5 | 0.5 | 10 | 75 | 4.5 | 32 |
| SMU2705JS | 5.0 | 270 | 140 | 7.6 | 0.5 | 10 | 50 | 6.8 | 32 |
| SMU2705GS | 5.0 | 270 | 140 | 7.6 | 0.5 | 10 | 50 | 6.8 | 32 |

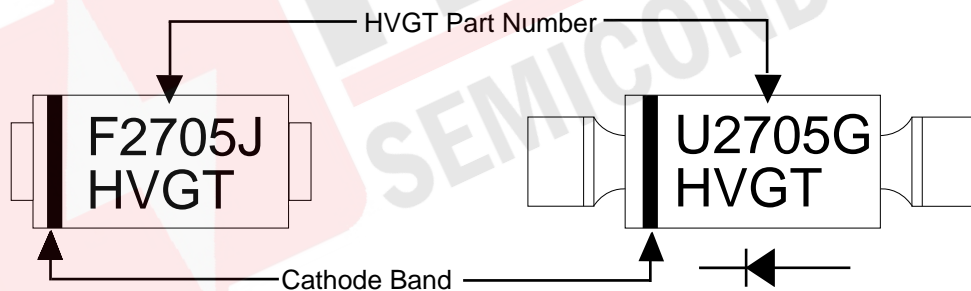
Temperature:

Storage Temperature -55 to 175 °C
 Operating Temperature -55 to 150 °C
 Maximum Junction Temperature 150 °C

Specification Definitions:

| Symbols | Items | Condition |
|--------------------|---|--|
| V _{RRM} | Maximum Repetitive Reverse Voltage | -- |
| I _{FAVM1} | Maximum Average Forward Current | At T _L = 55°C |
| I _{FAVM2} | Maximum Average Forward Current | At T _L = 100°C |
| V _F | Maximum Forward Voltage Drop | At 100mA |
| I _R | Maximum Leakage Current | At V _{RRM} |
| I _{FSM} | Maximum Surge Current | At 8.3 mS, 1/2 Sine(60Hz), @ 25°C |
| T _{RR} | Maximum Reverse Recovery Time | I _F = 0.5 I _{FAVM} ; I _R = -I _{FAVM} ; I _{RR} = -0.25 I _{FAVM} |
| C _J | Typical Junction Capacitance | At V _R = 0VDC, f = 1MHz |
| R _{JL} | Typical Thermal Resistance Junction to Lead | Device Mounted on 0.2" x 0.2" (5mm x 5mm) Copper Solder Pads |

Marking:



| Part number | SMF2705JS | SMF2705GS | SMU2705JS | SMU2705GS |
|-------------|----------------|----------------|----------------|----------------|
| Marking | F2705J HVGT | F2705G HVGT | U2705J HVGT | U2705G HVGT |

FIGURE 01 Reverse Recovery Measurement Waveform

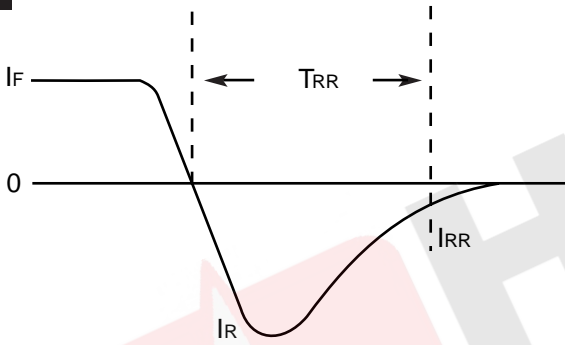


FIGURE 02 Forward Current Derating Curve

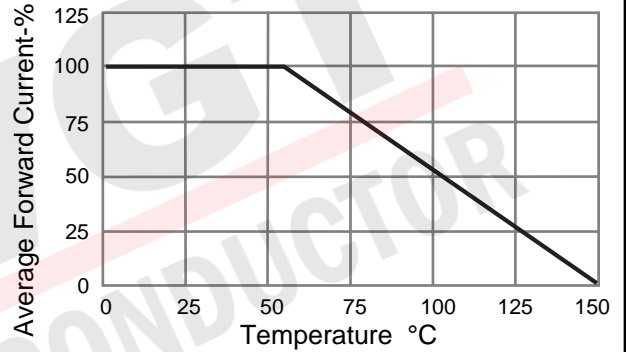


FIGURE 03 Positive Characteristic Curve

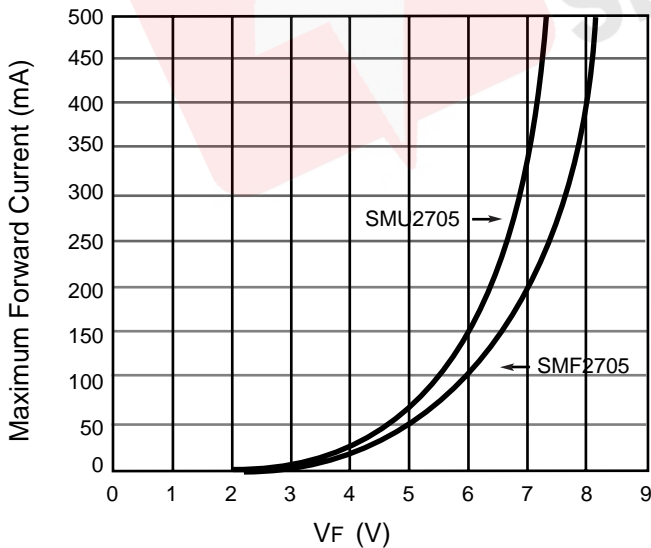


FIGURE 04 Reverse Leakage Current Curve With Voltage Variation

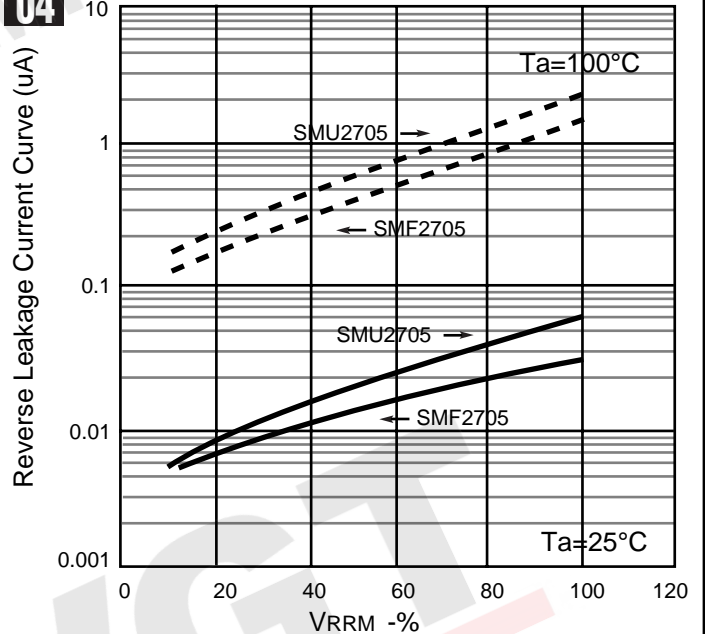
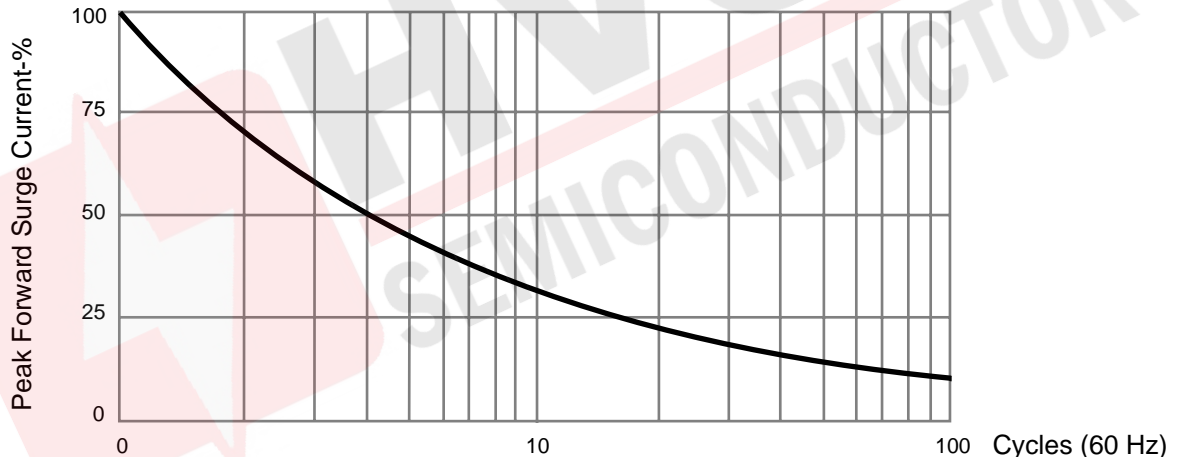


FIGURE 05 Repetitive Surge Current Derating Curve



This curve represents the percentage of published maximum surge rating as a function of surge repetition.

Notes:

- Specifications subject to change without notice. Photo is representation only.
- Standard package quantity:2,000PCS
- pecifications based on diode P.C.B. mounted on 5.0 mm x 5.0 mm copper solder pads.