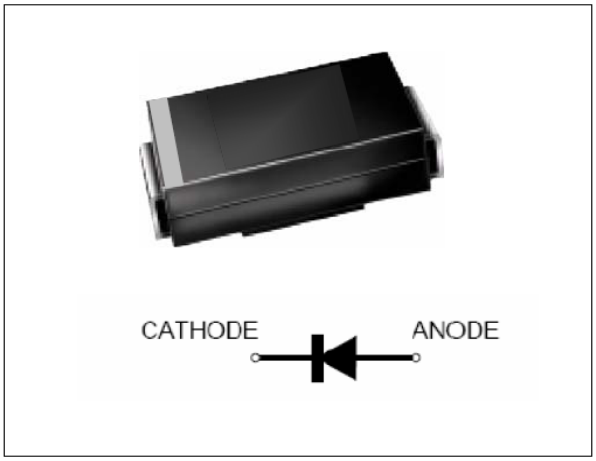
# HFM108

## Surface Mount Glass Passivated High Efficiency Rectifiers

## Reverse Voltage 1000V Forward Current 1.0A

### FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* High temperature metallurgically bonded construction
* For use in high frequency rectifier circuits
* Fast switching for high efficiency
* Cavity-free glass passivated junction
* Capable of meeting environmental standards of MIL-S-19500
* 1.0 A operation at TL=100°C with no thermal runaway
* Typical IR less than 1.0μA
* High temperature soldering guaranteed: 260°C/10 seconds




We declare that the material of product compliance with ROHS requirements

### 2.Mechanical Data

**Case**: JEDEC DO-214AC, molded plastic over glass body

**Terminals**: Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity**: Color band denotes cathode end

**Mounting Position**: Any

**Weight**: 0.0023 oz., 0.065 g

**Handling precautin**:None

### Electrical Characteristic

### 1.Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter Symbol | symbol | HFM108 | Unit |
|---|---|---|---|
| Device marking code | | HF8 | |
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 1000 | V |
| Maximum RSM voltage | $V_{RSM}$ | 700 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 1000 | V |
| Maximum average forward rectified current at TL = 100°C | IF(AV) | 1.0 | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 30 | A |
| Thermal resistance - Junction to Ambient (Note 2) | RθJA | 150 | °C/W |
| Thermal resistance - Junction to Case (Note 2) | RθJC | 45 | °C/W |
| Operating junction and storage temperature range | TJ, TSTG | –50 to +150 | °C |

### Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter Symbol | symbol | HFM108 | Unit |
|---|---|---|---|
| Maximum instantaneous forward voltage at 1.0A | $V_F$ | 1.7 | V |
| Maximum DC reverse current TA = 25°C<br>at rated DC blocking voltage TJ = 125°C | IR | 5.0<br>50 | μA |
| Maximum reverse recovery time (Note 1) | trr | 75 | ns |
| Typical junction capacitance at 4.0V, 1MHz | CJ | 10.0 | PF |

NOTES:

1. IF = 0.5A, IR = 1.0A, IRR = 0.25A
2. Mounted on standard soldering pad (1.77mm×1.60mm×1.27mm FR4-PCB) with single-sided copper foil.
3. VF & TRR & VDC & IR all test； other parameter is scheme out.

# HFM108

## 2.Ratings and Characteristic Curves ( TA = 25°C unless otherwise noted )

Fig. 1 – Forward Current Derating Curve

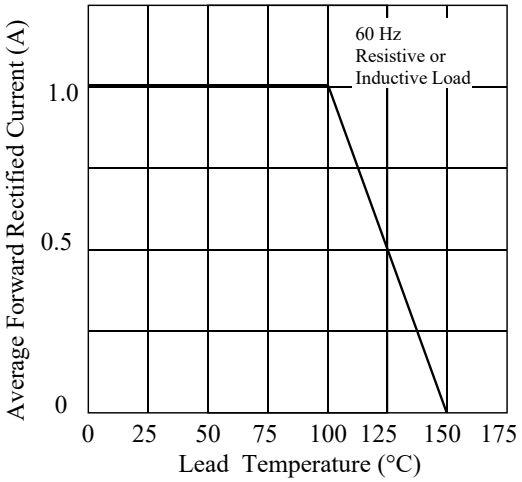



Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

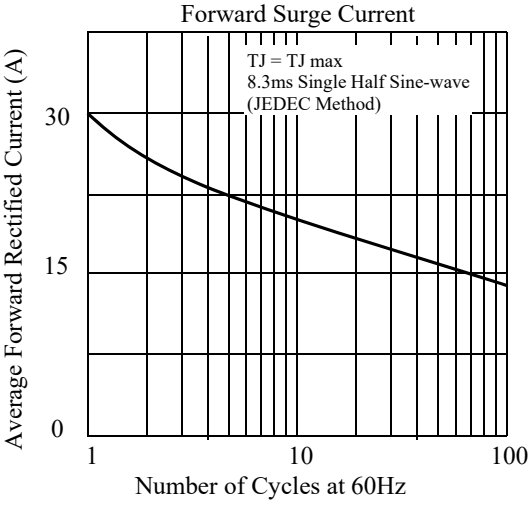



Fig 3. – Typical Instantaneous Forward Characteristics

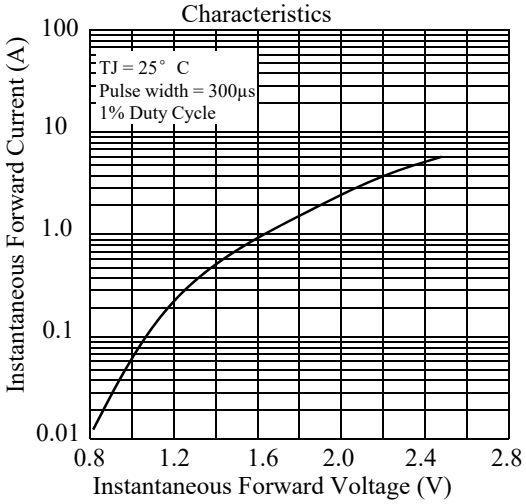



Fig 4. – Typical Reverse Characteristics

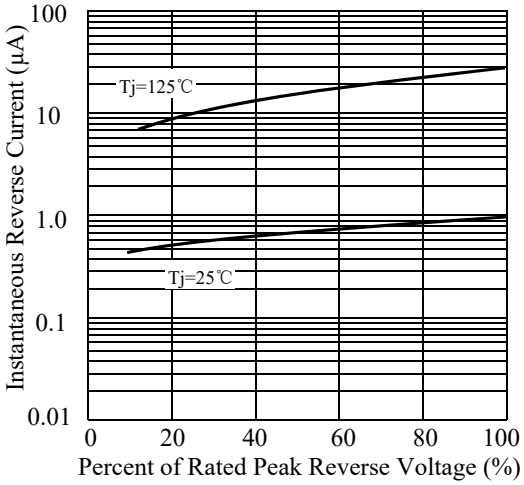



Fig 5. – typical transient thermal impedance

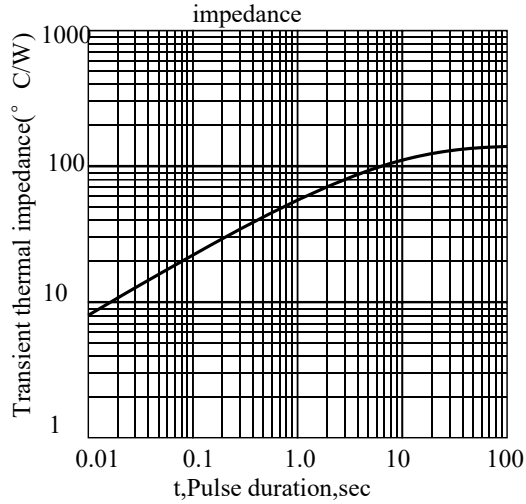
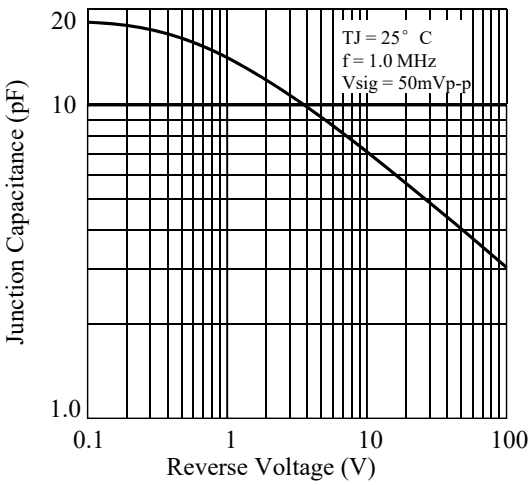
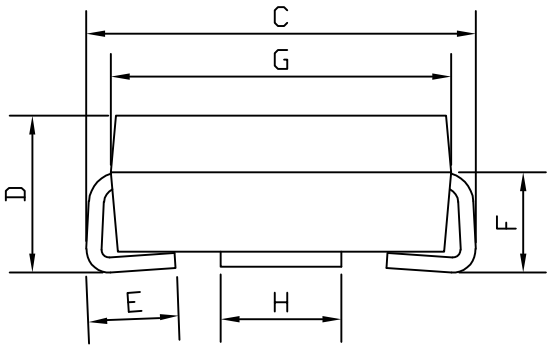


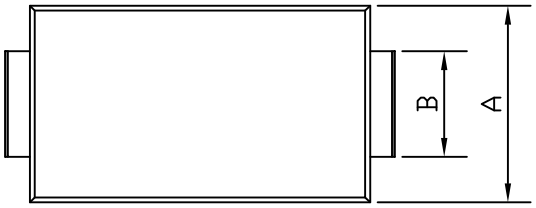

Fig 6. – Typical Junction Capacitance



# HFM108

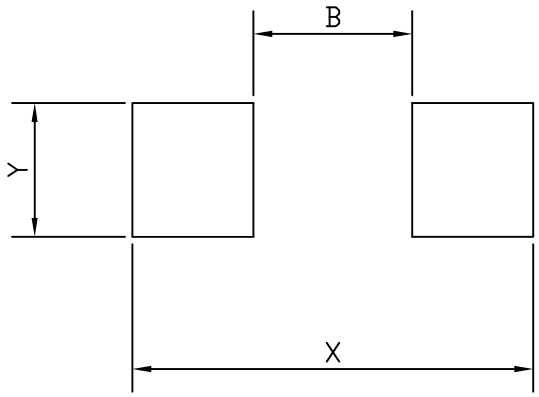
## 3. Outline and Dimensions




| SMA | | | |
|---|---|---|---|
| DIM | MIN | TYP | MAX |
| A | 2.20 | 2.60 | 2.80 |
| B | 1.30 | 1.40 | 1.70 |
| C | 4.70 | 5.15 | 5.30 |
| D | 1.70 | 2.10 | 2.55 |
| E | 0.90 | 1.20 | 1.50 |
| F | 0.90 | 1.35 | 1.50 |
| G | 4.20 | 4.50 | 4.80 |
| H | 1.40 | 1.60 | 1.80 |
| All Dimensions in mm | | | |

## 4. Soldering Footpint




| SMA | | |
|---|---|---|
| DIM(mm) | Min | Max |
| X | 5.30REF | |
| Y | 1.72 | 1.82 |
| B | 1.90 | 2.30 |

## DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.

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