

HSM107S

Silicon Schottky Barrier Diode for System Protection

REJ03G0173-0700Z
(Previous: ADE-208-058F)
Rev.7.00
Jan.28.2004

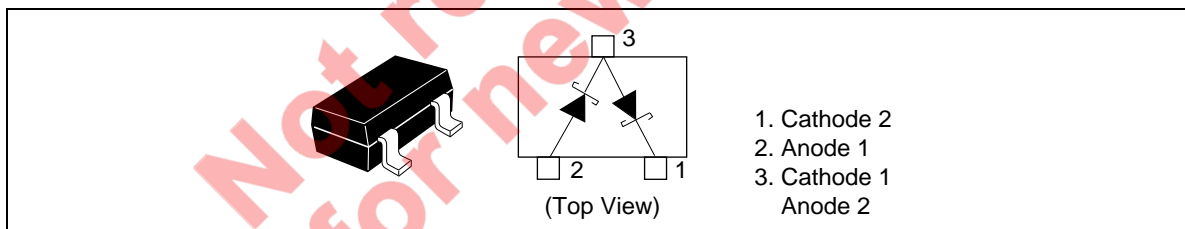
Features

- Low V_F and high efficiency.
- HSM107S which is interconnected in series configuration is designed for protection from not only external excessive voltage but also miss-operation on electric systems.
- MPAK Package is suitable for high density surface mounting and high speed assembly.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HSM107S | C5 | MPAK |

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|---|---------------------------------|-------------|------|
| Reverse voltage | V _R | 8 | V |
| Peak forward current | I _{FM} | 0.1 | A |
| Non-Repetitive peak forward surge current | I _{FSM} * ¹ | 0.5 | A |
| Average forward current | I _O * ² | 50 | mA |
| Junction temperature | T _j | 125 | °C |
| Storage temperature | T _{stg} | -55 to +125 | °C |

Notes: 1. Rectangular wave, 10 ms
2. Per one device

Electrical Characteristics *¹

(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|-------------------------------|----------------|-----|-----|-----|------|--|
| Reverse voltage | V _R | 8 | — | — | V | I _R = 1.0 mA |
| Reverse current | I _R | — | — | 30 | μA | V _R = 5 V |
| Forward voltage | V _F | — | — | 0.3 | V | I _F = 10 mA |
| ESD Capability * ² | — | 100 | — | — | V | C = 200 pF, Both forward and reverse direction 1 pulse |

Notes: 1. Per one device
2. Failure Criterion ; I_R ≥ 60 μA at V_R = 5 V

Main Characteristic

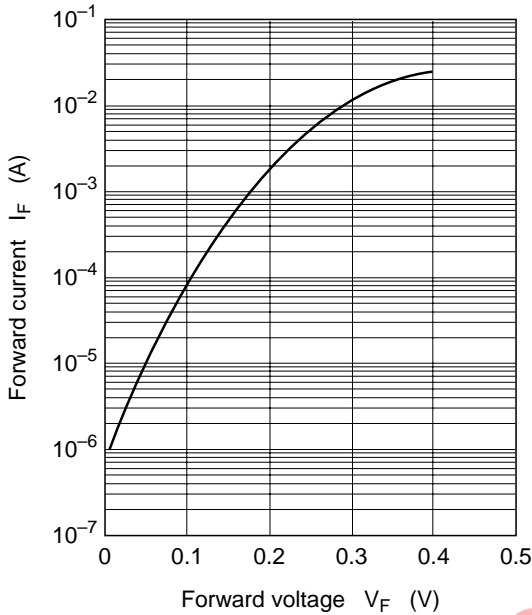


Fig.1 Forward current vs. Forward voltage

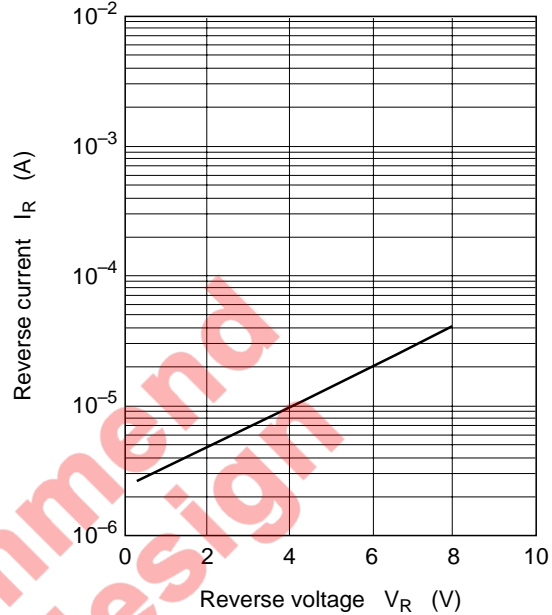


Fig.2 Reverse current vs. Reverse voltage

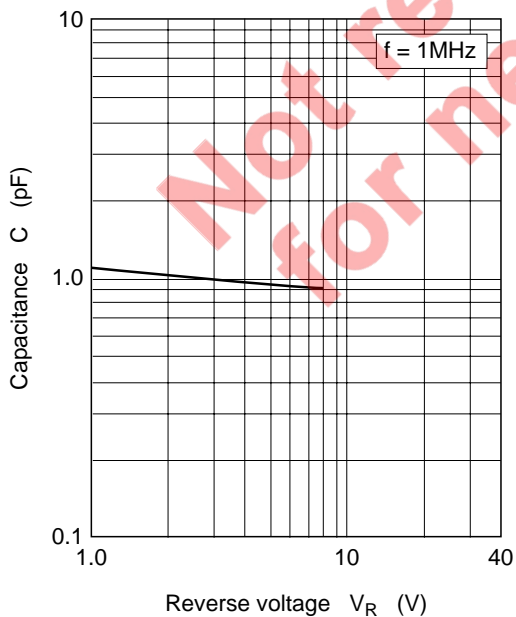
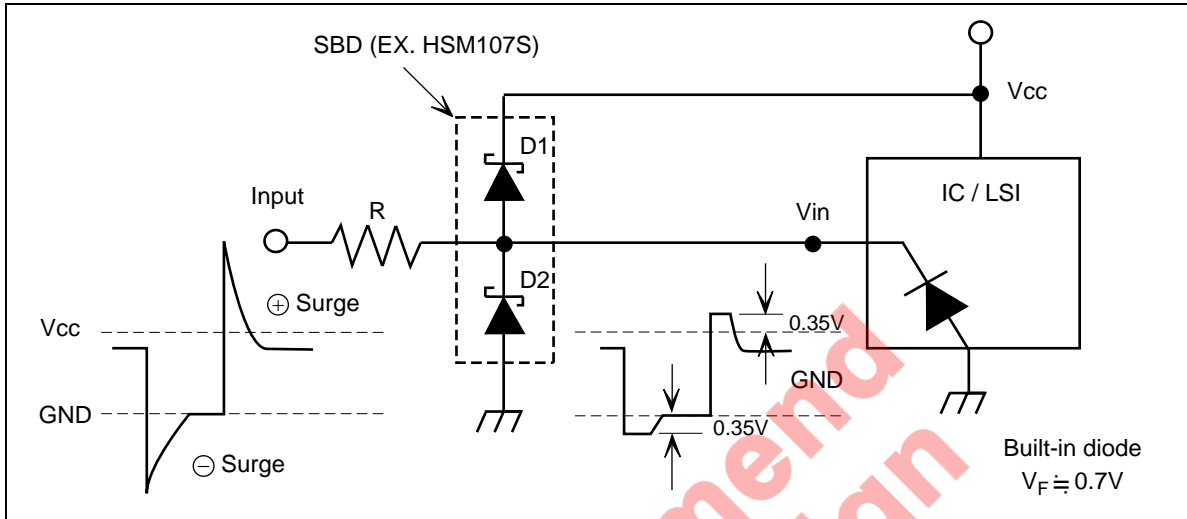


Fig.3 Capacitance vs. Reverse voltage

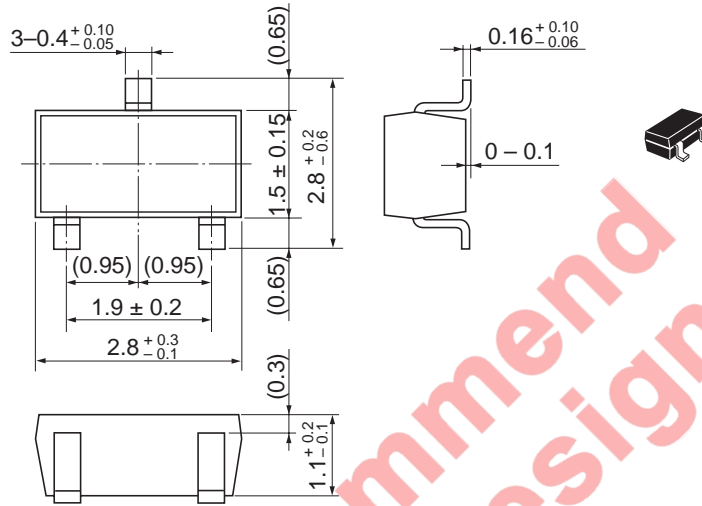
Example of application circuit



Not recommended for new design

Package Dimensions

As of January, 2003
Unit: mm



| | |
|------------------------|----------|
| Package Code | MPAK |
| JEDEC | — |
| JEITA | Conforms |
| Mass (reference value) | 0.011 g |

Not recommend for new design

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