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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

Cautions

Keep safety first in your circuit designs!

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Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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HSM88WK

Silicon Schottky Barrier Diode for Balanced Mixer

RENESAS

ADE-208-049F (Z)

Rev. 6
Jul. 1998

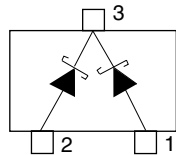
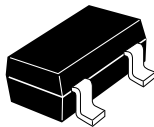
Features

- Proof against high voltage.
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HSM88WK | C4 | MPAK |

Pin Arrangement



(Top View)

- 1 Anode
- 2 Anode
- 3 Cathode

HSM88WK

Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|---------------------------|------------|-------------|------|
| Reverse voltage | V_R | 10 | V |
| Average rectified current | I_O^{*1} | 15 | mA |
| Junction temperature | Tj | 125 | °C |
| Storage temperature | Tstg | -55 to +125 | °C |

Notes 1.Per one device

Electrical Characteristics ^{*1}

(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|------------------------------|--------------|-----|-----|------|------|---|
| Forward voltage | V_{F1} | 350 | — | 420 | mV | $I_F = 1 \text{ mA}$ |
| | V_{F2} | 500 | — | 580 | | $I_F = 10 \text{ mA}$ |
| Reverse current | I_{R1} | — | — | 0.2 | μA | $V_R = 2V$ |
| | I_{R2} | — | — | 10 | | $V_R = 10V$ |
| Capacitance | C | — | — | 0.85 | pF | $V_R = 0V, f = 1 \text{ MHz}$ |
| Capacitance deviation | ΔC | — | — | 0.10 | pF | $V_R = 0V, f = 1 \text{ MHz}$ |
| Forward voltage deviation | ΔV_F | — | — | 10 | mV | $I_F = 10 \text{ mA}$ |
| ESD-Capability ^{*2} | — | 30 | — | — | V | C=200pF , Both forward and reverse direction 1 pulse. |

Notes 1. Per one device

Notes 2. Failure criterion ; $I_R \geq 400\text{nA}$ at $V_R = 2 \text{ V}$

Main Characteristic

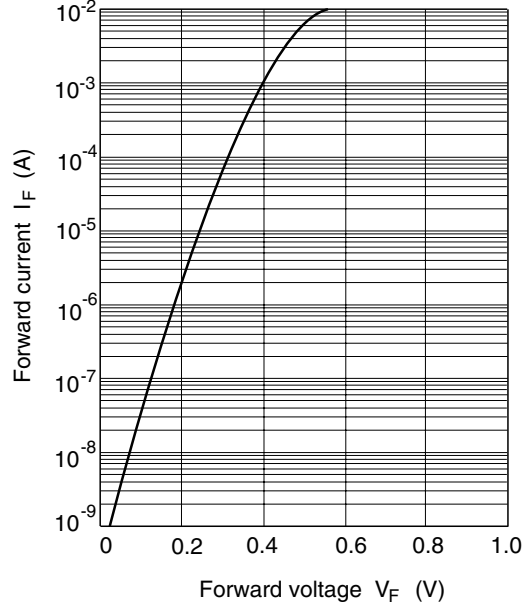


Fig.1 Forward current Vs. Forward voltage

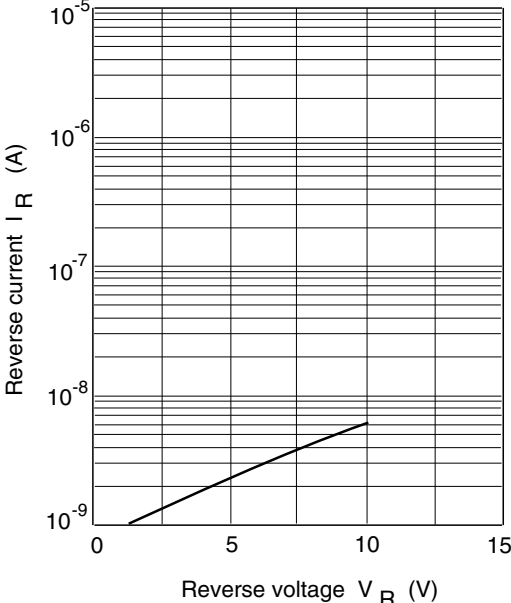


Fig.2 Reverse current Vs. Reverse voltage

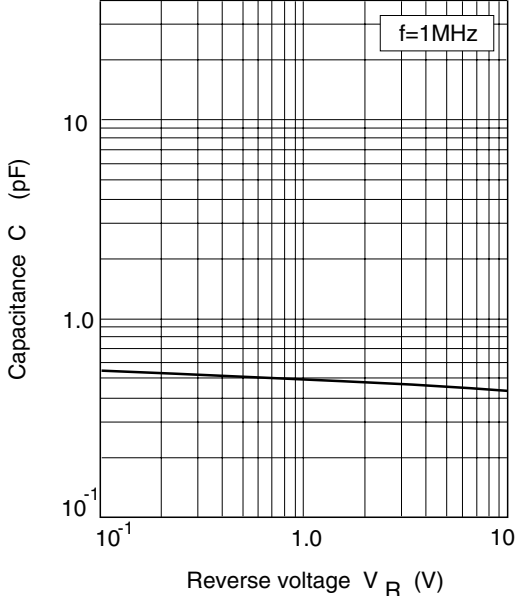
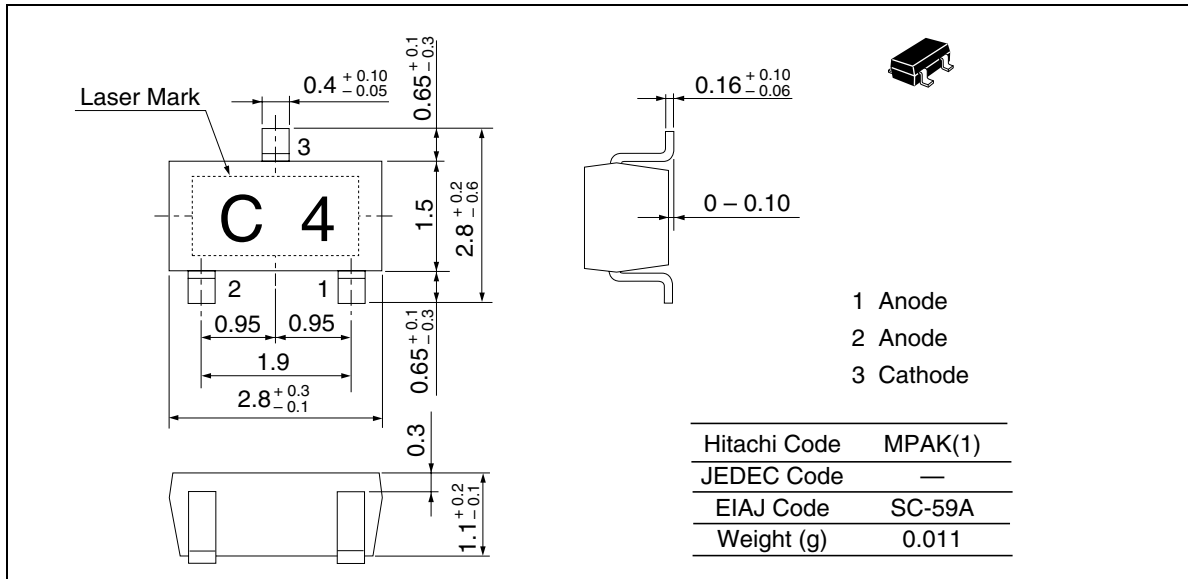


Fig.3 Capacitance Vs. Reverse voltage

HSM88WK

Package Dimensions

Unit : mm



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