

RKP200KP

Silicon Epitaxial Planar Pin Diode for Antenna Switching

REJ03G1303-0300

Rev.3.00

Feb 21, 2007

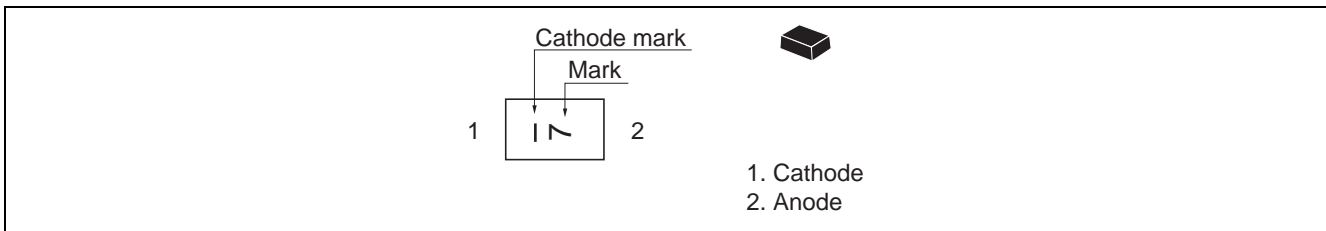
Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. (C = 0.35 pF max)
- Low forward resistance. (rf = 1.3 Ω max)
- Halogen free, Environmental friendly Package include Conformity to RoHS Directive.
- Ultra small Package (0.6mm×0.3mm Size leadless type)

Ordering Information

| Part No. | Laser Mark | Package Name | Package Code |
|----------|------------|--------------|--------------|
| RKP200KP | 7 | MP6 | PXSN0002ZB-A |

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|----------------------|-----------|-------------|------|
| Reverse voltage | V_R | 30 | V |
| Forward current | I_F | 100 | mA |
| Power dissipation | P_d | 100 | mW |
| Junction temperature | T_j | 125 | °C |
| Storage temperature | T_{stg} | -55 to +125 | °C |

Electrical Characteristics

(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|--------------------|--------|-----|-----|------|----------|--|
| Forward voltage | V_F | — | — | 1.0 | V | $I_F = 10 \text{ mA}$ |
| Reverse current | I_R | — | — | 100 | nA | $V_R = 30 \text{ V}$ |
| Capacitance | C | — | — | 0.35 | pF | $V_R = 1 \text{ V}, f = 1 \text{ MHz}$ |
| Forward resistance | r_f | — | — | 1.3 | Ω | $I_F = 10 \text{ mA}, f = 100 \text{ MHz}$ |
| ESD-Capability *1 | — | 100 | — | — | V | $C = 200 \text{ pF}, R = 0 \Omega$, Both forward and reverse direction 1 pulse. |

Notes: 1. Failure criterion ; $I_R > 100 \text{ nA}$ at $V_R = 30 \text{ V}$

2. Please do not use the soldering iron due to avoid high stress to the MP6 package.

Main Characteristic

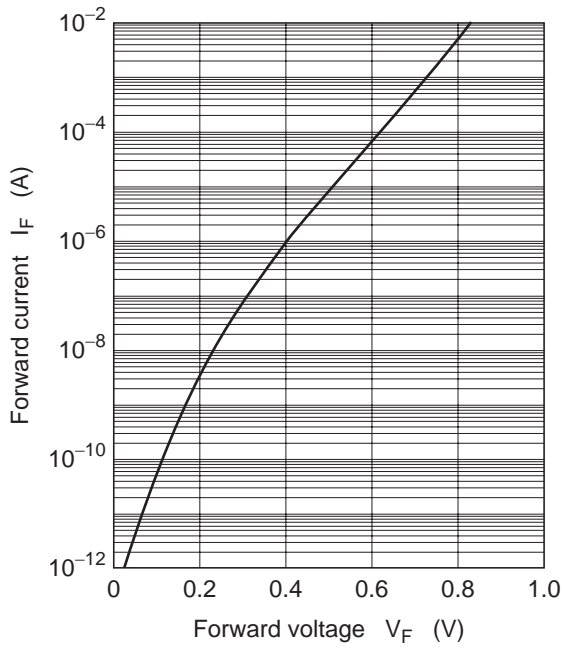


Fig.1 Forward current vs. Forward voltage

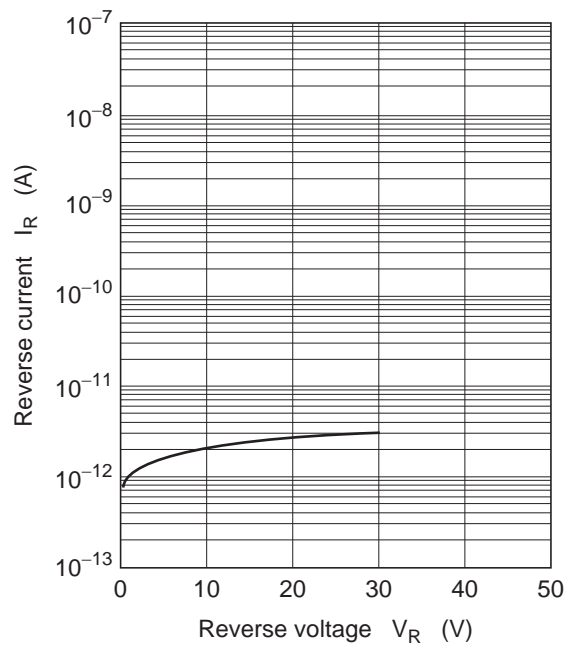


Fig.2 Reverse current vs. Reverse voltage

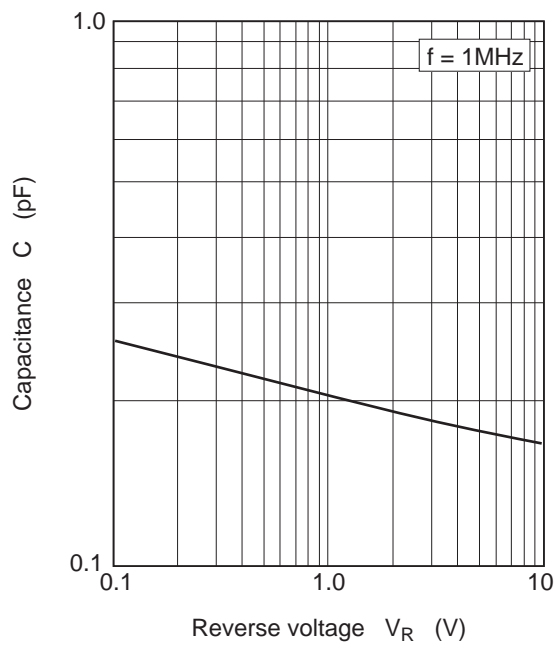


Fig.3 Capacitance vs. Reverse voltage

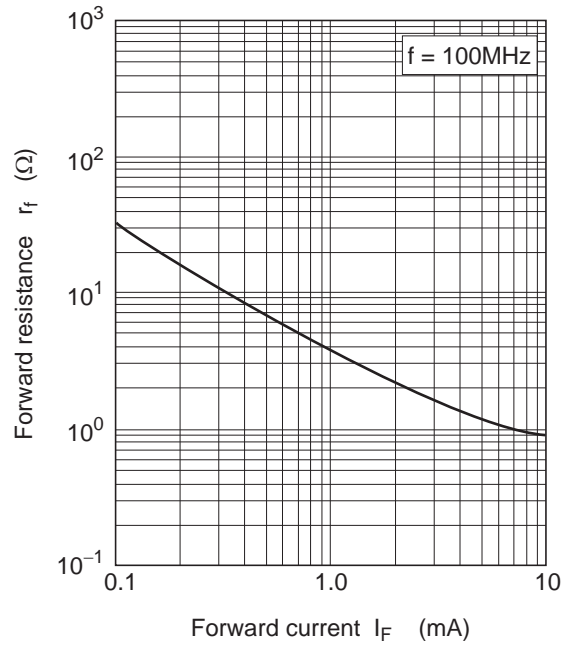
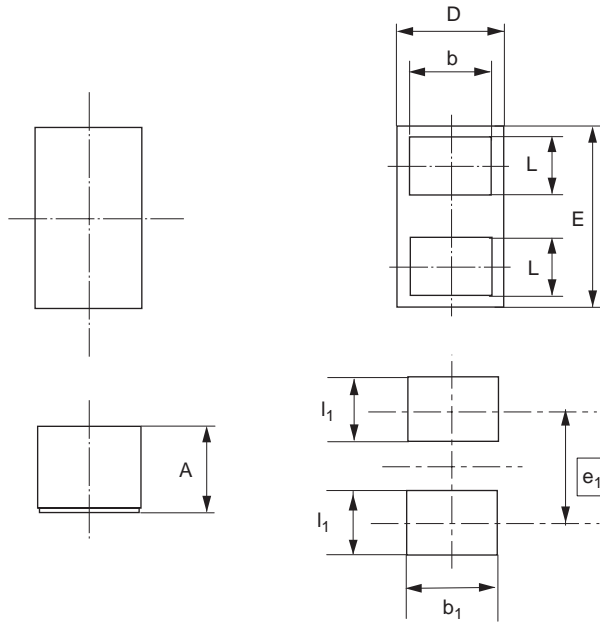


Fig.4 Forward resistance vs. Forward current

Package Dimensions

| | | | | |
|--------------|--------------------|--------------|---------------|------------|
| Package Name | JEITA Package Code | RENESAS Code | Previous Code | MASS[Typ.] |
| MP6 | — | PXSN0002ZB-A | MP6V | 0.00015g |



Pattern of terminal position areas

| Reference Symbol | Dimension in Millimeters | | |
|------------------|--------------------------|------|------|
| | Min | Nom | Max |
| A | 0.27 | 0.30 | 0.33 |
| b | 0.25 | 0.27 | 0.29 |
| D | 0.29 | 0.32 | 0.35 |
| E | 0.59 | 0.62 | 0.65 |
| L | 0.17 | 0.19 | 0.21 |
| b ₁ | — | 0.31 | — |
| e ₁ | — | 0.38 | — |
| l ₁ | — | 0.23 | — |

Notes:

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