

# RKP400KS

## Composite Pin Diode for Antenna Switching

REJ03G1257-0200  
Rev.2.00  
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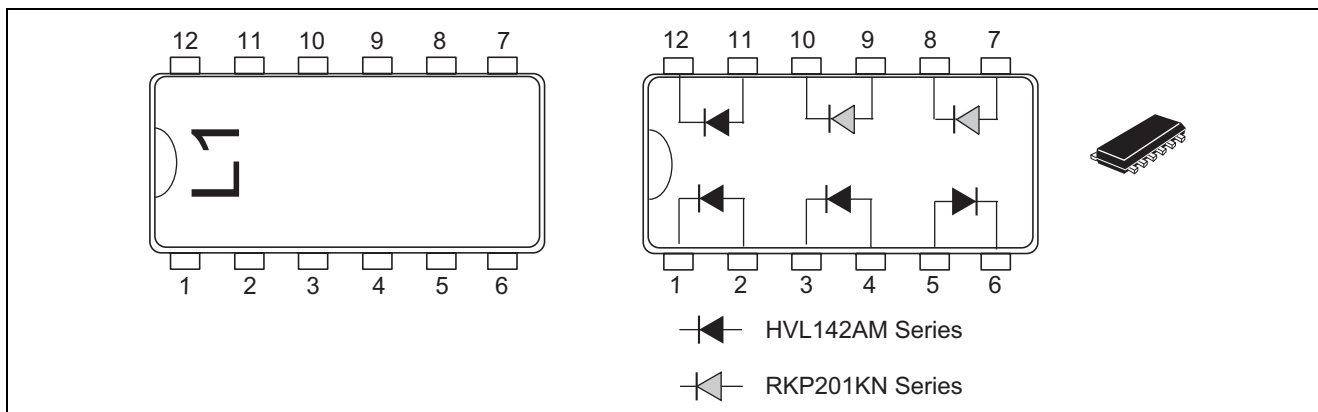
### Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ( $C = 0.35 \text{ pF max}$ )
- Low forward resistance. ( $r_f = 2.0 \Omega \text{ max @ } I_F = 2 \text{ mA, } f = 100 \text{ MHz}$ )
- Thin outline of diode array with six different kind elements (MFP12) is suitable for surface mount design.

### Ordering Information

| Type No. | Laser Mark | Package Name | Package Code |
|----------|------------|--------------|--------------|
| RKP400KS | L1         | MFP12        | PUSF0012ZA-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   |

Note: Per one device

## Electrical Characteristics (HVL142AM Series)

(Ta = 25°C)

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

## Electrical Characteristics (RKP201KN Series)

(Ta = 25°C)

| Item                          | Symbol | Min | Typ | Max  | Unit     | Test Condition                                                           |
|-------------------------------|--------|-----|-----|------|----------|--------------------------------------------------------------------------|
| Reverse current               | $I_R$  | —   | —   | 100  | nA       | $V_R = 30$ V                                                             |
| Forward voltage               | $V_F$  | —   | —   | 0.9  | V        | $I_F = 2$ mA                                                             |
| Capacitance                   | C      | —   | —   | 0.35 | pF       | $V_R = 1$ V, $f = 1$ MHz                                                 |
| Forward resistance            | $r_f$  | —   | —   | 2.0  | $\Omega$ | $I_F = 2$ mA, $f = 100$ MHz                                              |
| ESD-Capability * <sup>1</sup> | —      | 100 | —   | —    | V        | C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse. |

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

2. For MFP12 package, the material of lead is exposed for cutting plane. There for, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

## Main Characteristic (HVL142AM Series)

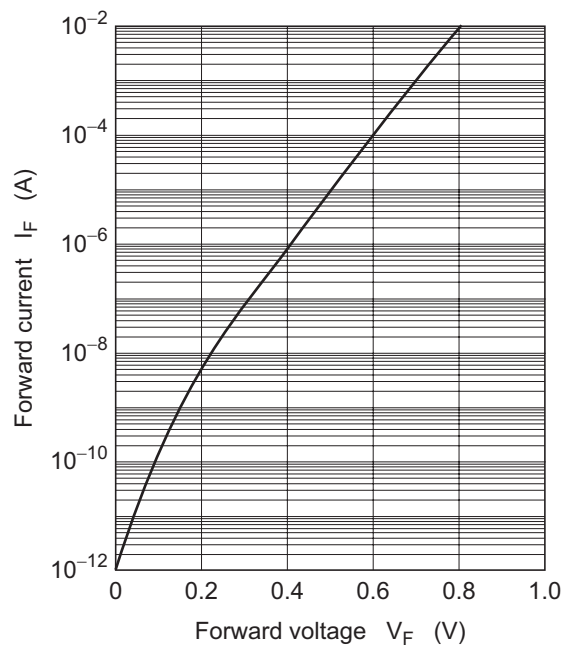


Fig.1 Forward current vs. Forward voltage

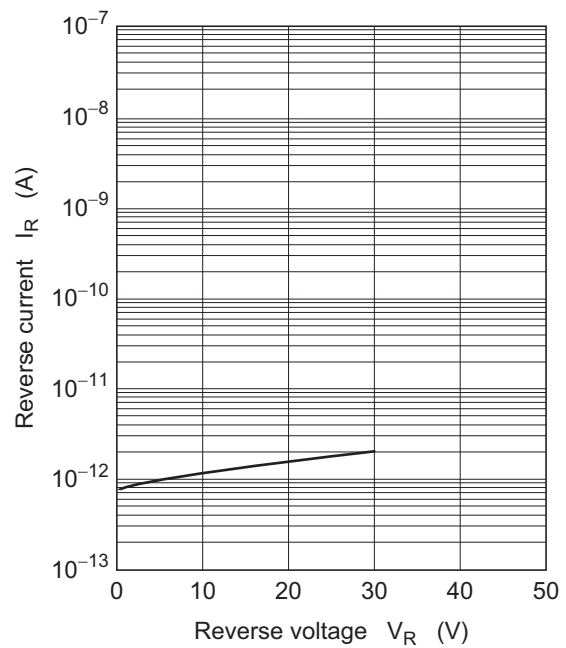


Fig.2 Reverse current vs. Reverse voltage

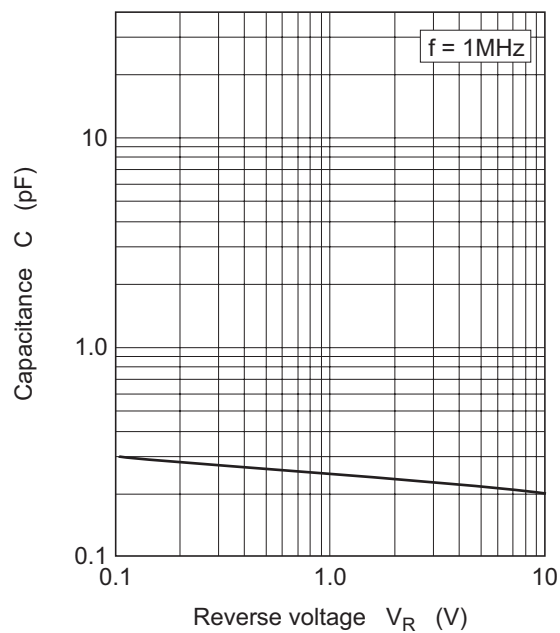


Fig.3 Capacitance vs. Reverse voltage

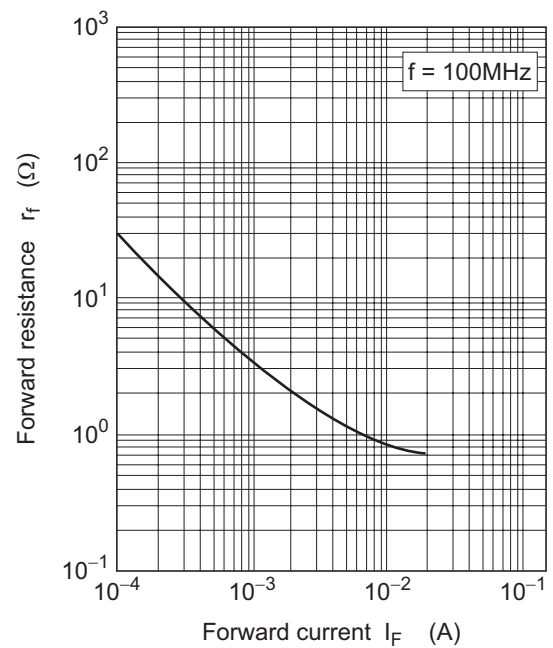


Fig.4 Forward resistance vs. Forward current

## Main Characteristic (RKP201KN Series)

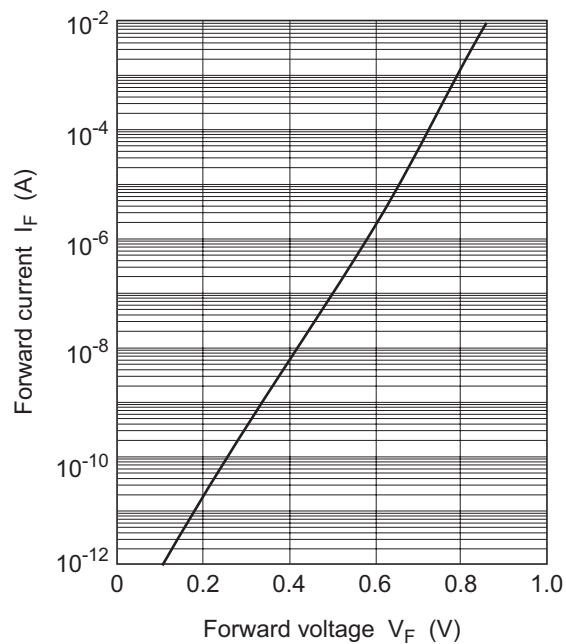


Fig.1 Forward current vs. Forward voltage

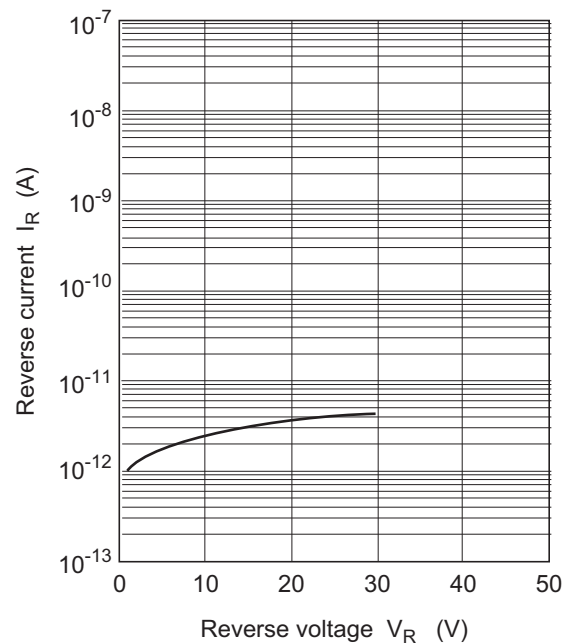


Fig.2 Reverse current vs. Reverse voltage

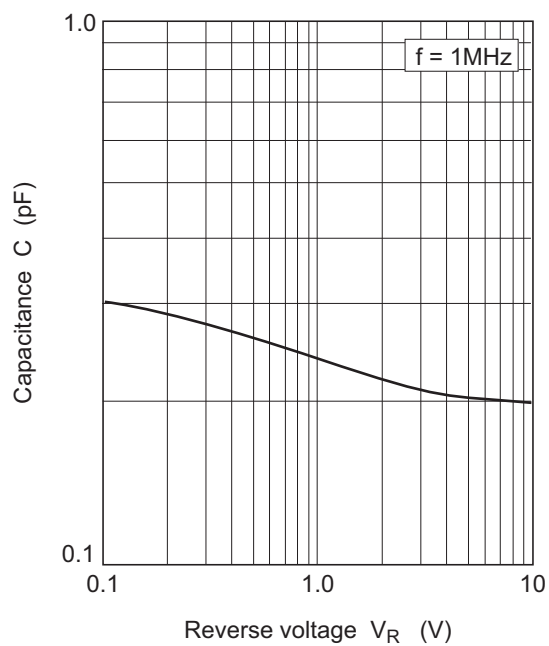


Fig.3 Capacitance vs. Reverse voltage

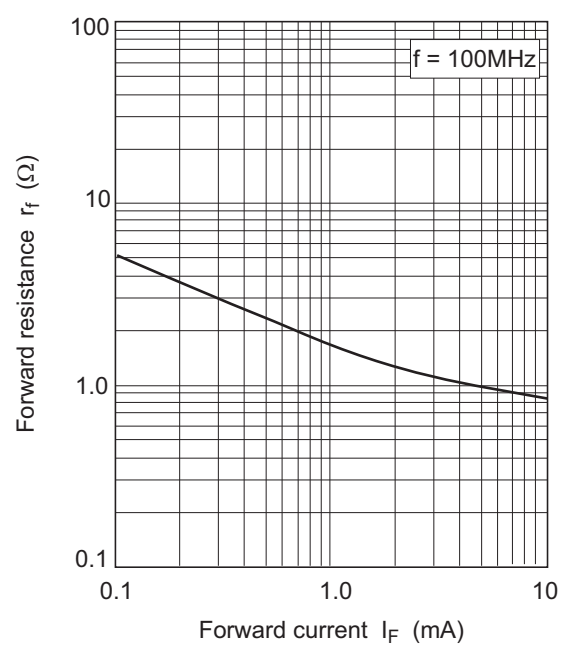
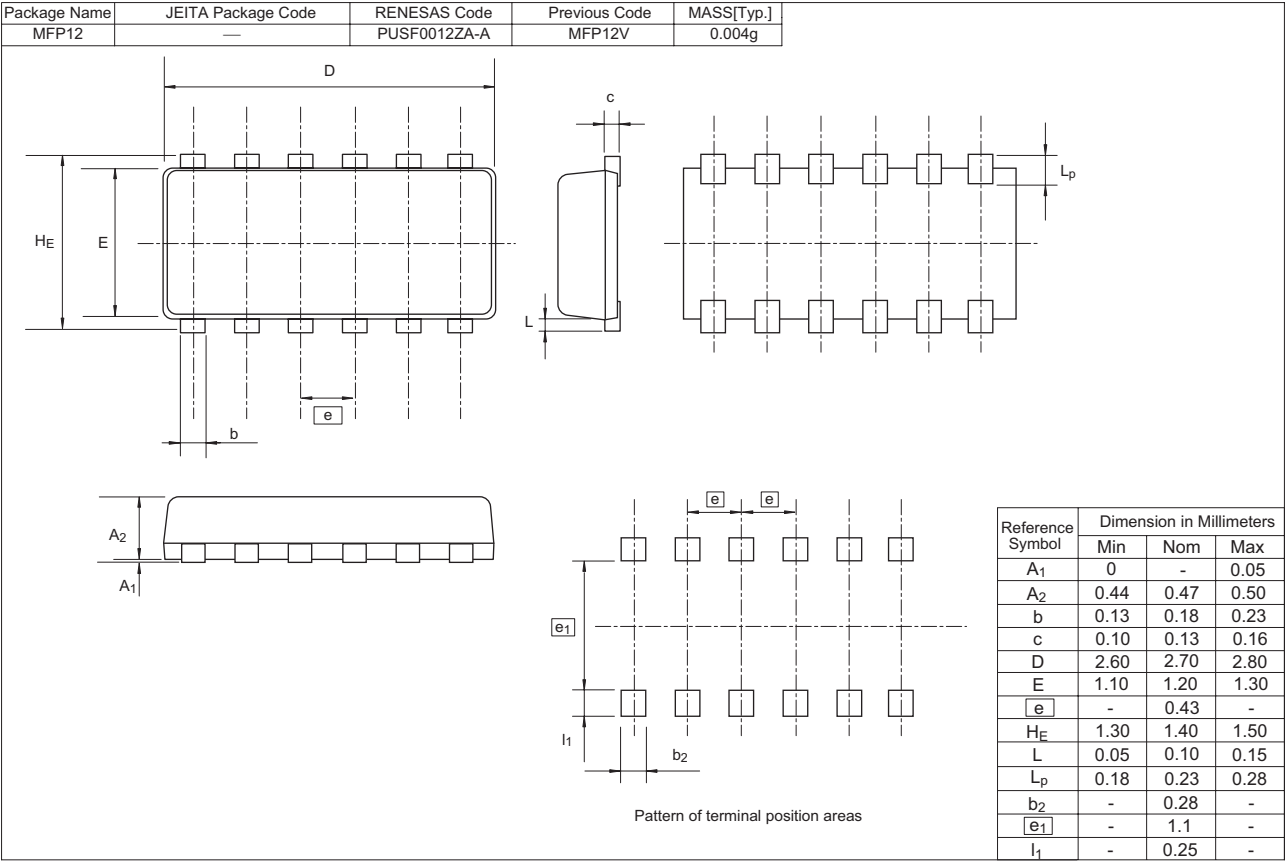


Fig.4 Forward resistance vs. Forward current

Package Dimensions



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