

Schottky barrier double diodes

PMBD352; PMBD353

FEATURES

- Low forward voltage
- Small SMD package
- Low capacitance.

APPLICATIONS

- UHF mixer
- Sampling circuits
- Modulators
- Phase detection.

DESCRIPTION

Planar Schottky barrier double diodes in series connection with different pinning.

The diodes are encapsulated in a SOT23 small plastic SMD package.

MARKING

| TYPE NUMBER | MARKING CODE |
|-------------|--------------|
| PMBD352 | p5g |
| PMBD353 | p4f |

PINNING

| PIN | DESCRIPTION |
|----------------------------|-------------|
| PMBD352 (see Fig.2) | |
| 1 | a_1 |
| 2 | k_2 |
| 3 | k_1, a_2 |
| PMBD353 (see Fig.3) | |
| 1 | k_1 |
| 2 | a_2 |
| 3 | a_1, k_2 |

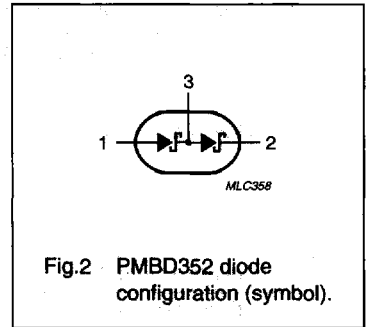


Fig.2 PMBD352 diode configuration (symbol).

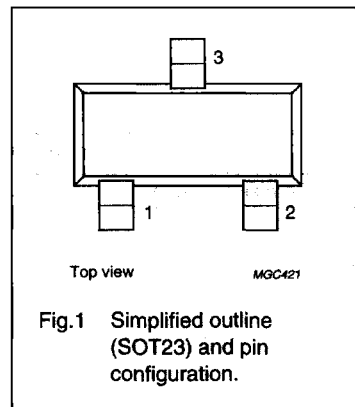


Fig.1 Simplified outline (SOT23) and pin configuration.

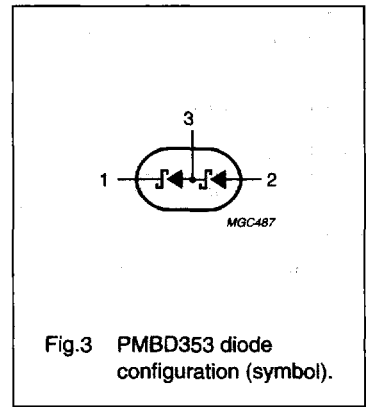


Fig.3 PMBD353 diode configuration (symbol).

LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

| SYMBOL | PARAMETER | MIN. | MAX. | UNIT |
|------------------|----------------------------|------|------|------|
| Per diode | | | | |
| V_R | continuous reverse voltage | - | 4 | V |
| I_F | continuous forward current | - | 30 | mA |
| T_{stg} | storage temperature | -65 | +150 | °C |
| T_j | junction temperature | - | 100 | °C |

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ELECTRICAL CHARACTERISTICS

$T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified.

| SYMBOL | PARAMETER | CONDITIONS | MAX. | UNIT |
|------------------|-------------------|---|------|---------------|
| Per diode | | | | |
| V_F | forward voltage | see Fig.4 | | |
| | | $I_F = 0.1\text{ mA}$ | 350 | mV |
| | | $I_F = 1\text{ mA}$ | 450 | mV |
| | | $I_F = 10\text{ mA}$ | 600 | mV |
| I_R | reverse current | $V_R = 3\text{ V}$; note 1; see Fig.5 | 0.25 | μA |
| C_d | diode capacitance | $f = 1\text{ MHz}$; $V_R = 0\text{ V}$; see Fig.6 | 1 | pF |

Note

1. Pulsed test: $t_p = 300\text{ }\mu\text{s}$; $\delta = 0.02$.

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|---------------|---|------------|-------|------|
| $R_{th\ j-a}$ | thermal resistance from junction to ambient | note 1 | 500 | K/W |

Note

1. Refer to SOT23 standard mounting conditions.

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GRAPHICAL DATA

