



# SDP510WMF

Pin Diode

## Features

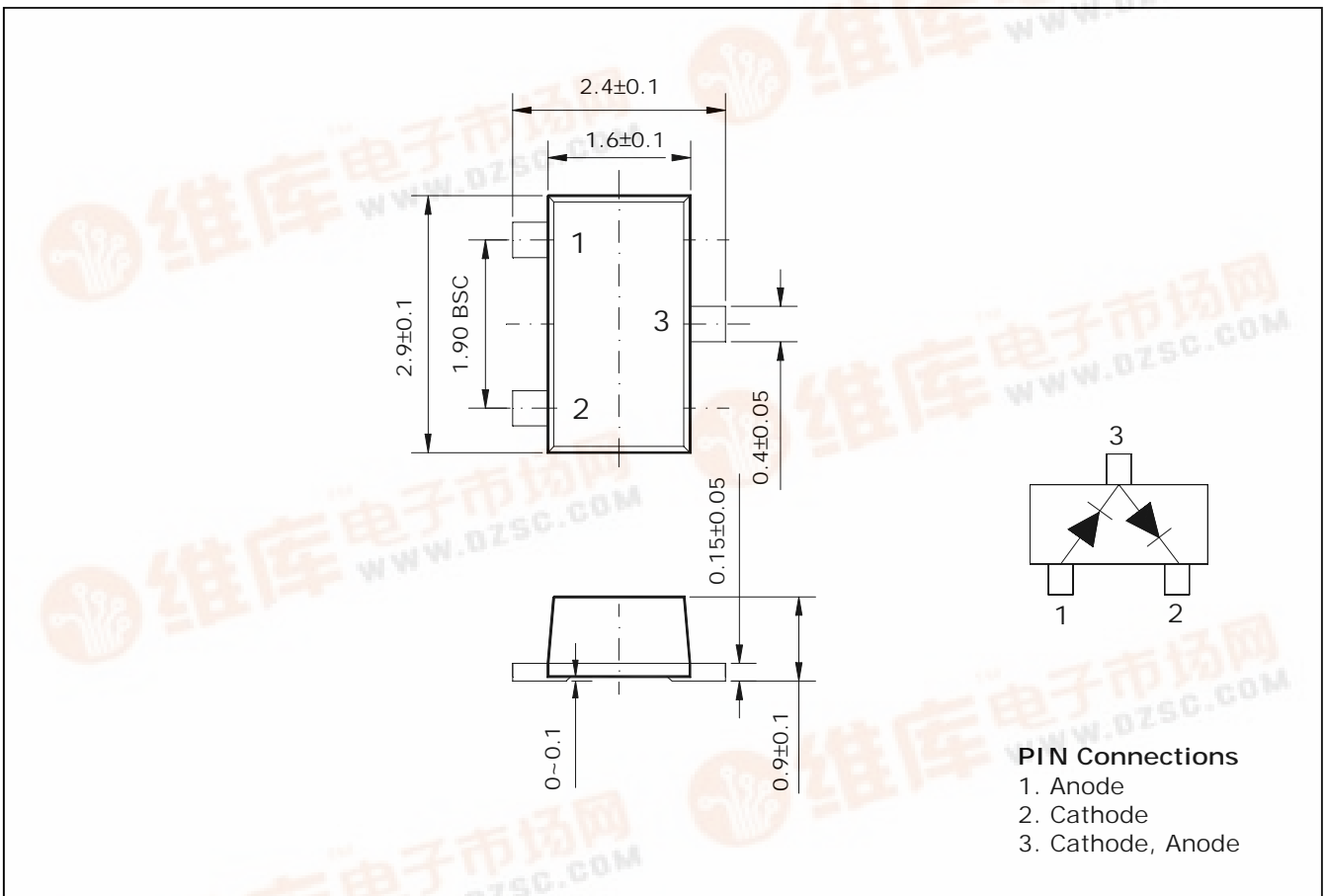
- SMD package : SOT-23F
- Low capacitance :  $C_T=0.25\text{pF(Typ.)}$
- Low series resistance :  $r_s=1.5\Omega\text{(Typ.)}$
- VHF tuner band RF attenuator application
- AGC for FM tuner

## Ordering Information

| Type No.  | Marking | Package Code |
|-----------|---------|--------------|
| SDP510WMF | W5M     | SOT-23F      |

## Outline Dimensions

unit : mm



**PIN Connections**  
 1. Anode  
 2. Cathode  
 3. Cathode, Anode



# SDP510WMF

## Absolute maximum ratings

Ta=25°C

| Characteristic             | Symbol                      | Ratings   | Unit |
|----------------------------|-----------------------------|-----------|------|
| Continuous reverse voltage | V <sub>R</sub>              | 50        | V    |
| Forward current            | I <sub>F</sub> <sup>*</sup> | 50        | mA   |
| Junction temperature       | T <sub>j</sub>              | 150       | °C   |
| Storage temperature        | T <sub>stg</sub>            | -55 ~ 150 | °C   |

\* : Unit ratings. Total rating = Unit rating × 1.5

## Electrical Characteristics

Ta=25°C

| Characteristic    | Symbol         | Test Condition                 | Min. | Typ. | Max. | Unit |
|-------------------|----------------|--------------------------------|------|------|------|------|
| Reverse voltage   | V <sub>R</sub> | I <sub>F</sub> =10μA           | 50   | -    | -    | V    |
| Reverse current   | I <sub>R</sub> | V <sub>R</sub> =50V            | -    | -    | 0.1  | μA   |
| Forward voltage   | V <sub>F</sub> | I <sub>F</sub> =50mA           | -    | 0.95 | -    | V    |
| Total capacitance | C <sub>T</sub> | V <sub>R</sub> =50V, f=1MHz    | -    | 0.25 | -    | pF   |
| Series resistance | r <sub>S</sub> | I <sub>F</sub> =10mA, f=100MHz | -    | 1.5  | -    | Ω    |

Electrical Characteristic Curves

Fig. 1  $C_T$ - $V_R$

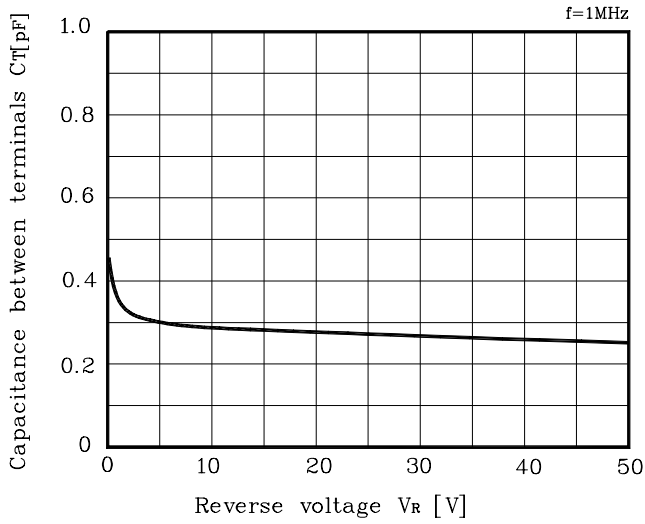


Fig. 2  $r_s$ - $I_F$

