

# SDP530Q

**Attenuator Diode** 

### **Features**

• Low capacitance : Max 0.5pF

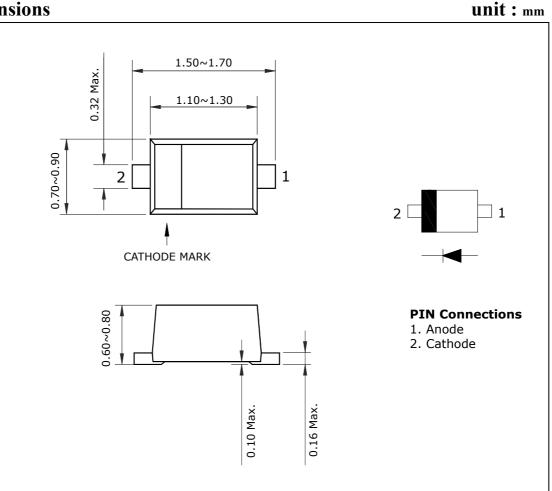
• Low series resistance :  $rs=3\Omega(Typ.)@IF=10mA$ 

• AGC and attenuator diode for VHF/UHF band tuner

## **Ordering Information**

Type No.	Marking	Package Code
SDP530Q	W3	SOD-523

### **Outline Dimensions**



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# SDP530Q

**Absolute maximum ratings** 

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Continuous reverse voltage	$V_R$	50	V
Forward current	${\rm I_F}^*$	50	mA
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	$T_{stg}$	-55 ~ 150	°C

## **Electrical Characteristics**

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Reverse voltage	$V_R$	$I_R = 10 \mu A$	50	1	ı	V
Reverse current	$I_R$	V <sub>R</sub> =50V	-	1	0.1	μΑ
Forward voltage	$V_{F}$	I <sub>F</sub> =50mA	-	0.95	-	V
Total capacitance	C <sub>T</sub>	V <sub>R</sub> =50V, f=1MHz	-	-	0.5	pF
Series resistance	r <sub>S</sub>	I <sub>F</sub> =0.1mA, f=100MHz	-	130	-	Ω
		I <sub>F</sub> =1mA, f=100MHz	-	17	-	Ω
		I <sub>F</sub> =10mA, f=100MHz	-	3	-	Ω

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### **Electrical Characteristic Curves**

Fig. 1 I<sub>C</sub>-T<sub>a</sub>

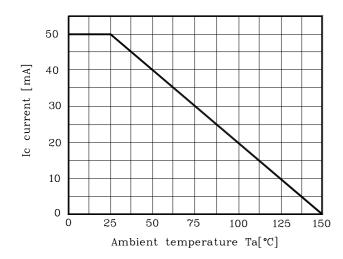


Fig. 2  $I_F$ - $V_F$ 

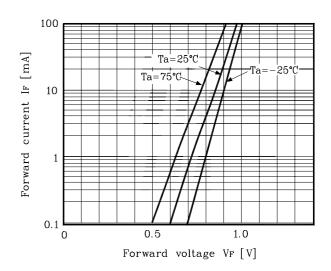


Fig. 3  $C_T$ - $V_R$ 

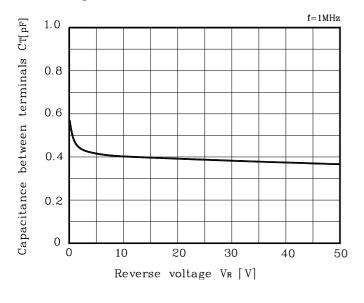
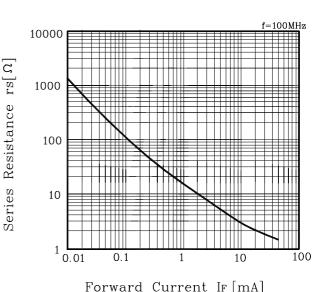


Fig. 4  $r_s$ - $I_F$ 



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