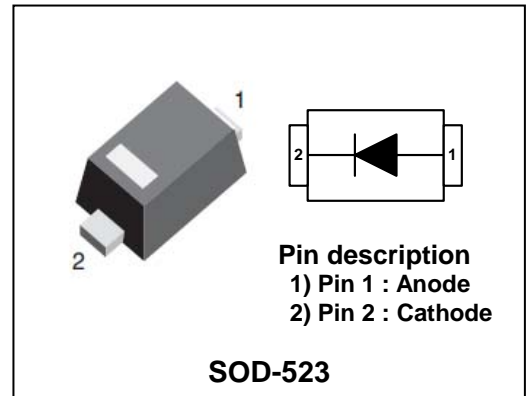


Description

General purpose PIN diode in a SOD-523 small SMD plastic package.

Feature

- Low capacitance : $C_T=0.25\text{pF}$ (Typ.)
- Low series resistance : $r_S=1.5\Omega$ (Typ.)
- Full lead (Pb)-free and RoHS compliant device
- Available in Green EMC



Applications

- VHF tuner band RF attenuator
- AGC for FM tuner

Ordering Information

Device	Marking Code ¹⁾	Package	Packaging
SDP510Q	P2 □ ① ②	SOD-523	Tape & Reel

* Note 1) : ① Device code, ② Year & Week code

Absolute Maximum Ratings (Ta=25°C, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Continuous reverse voltage	V_R	50	V
Forward current	I_F	50	mA
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55 ~ 150	°C

Electrical Characteristics (Ta=25°C, Unless otherwise specified)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse voltage	V_R	$I_R=10\mu A$	50	-	-	V
Reverse current	I_R	$V_R=50V$	-	-	0.1	μA
Forward voltage	V_F	$I_F=50mA$	-	0.95	-	V
Total capacitance	C_T	$V_R=50V, f=1MHz$	-	0.25	-	pF
Series resistance	r_S	$I_F=10mA, f=100MHz$	-	1.5	-	Ω

Rating and Characteristic Curves

Fig. 1 $C_T - V_R$

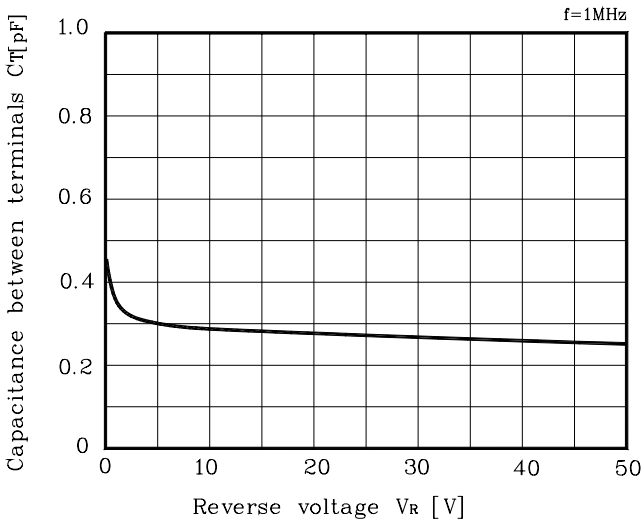
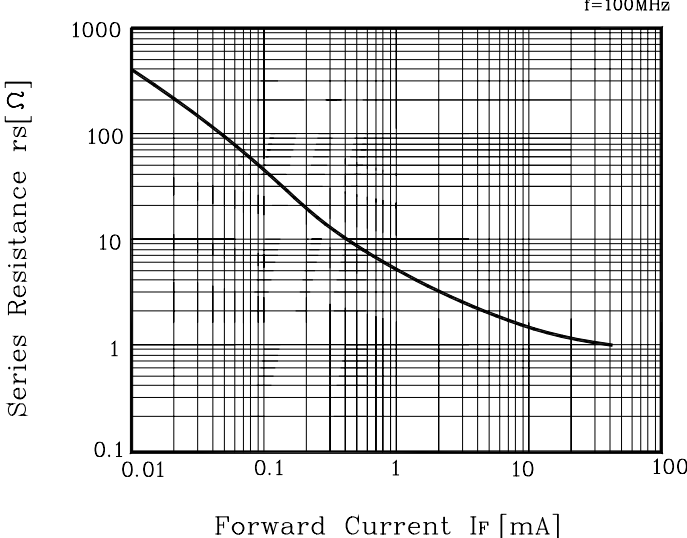
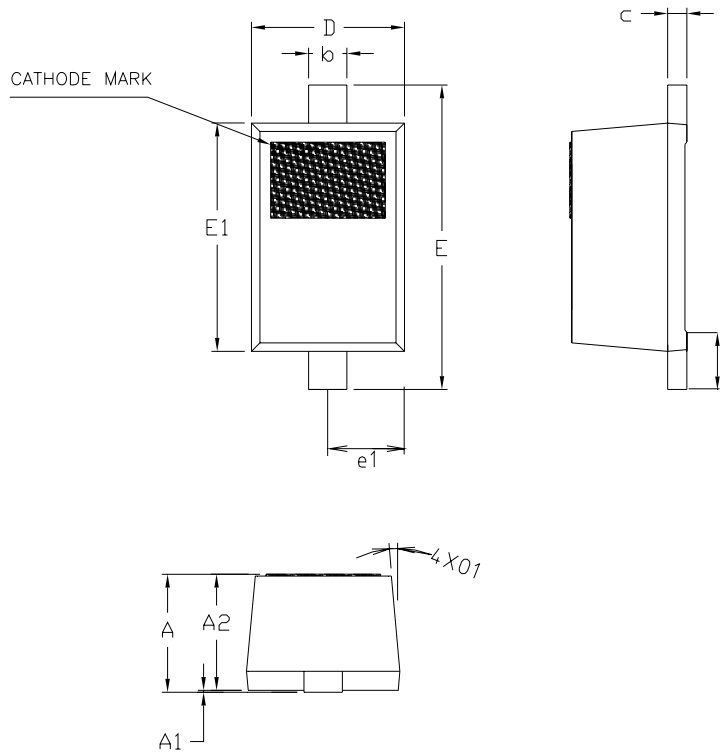


Fig. 2 $r_s - I_F$

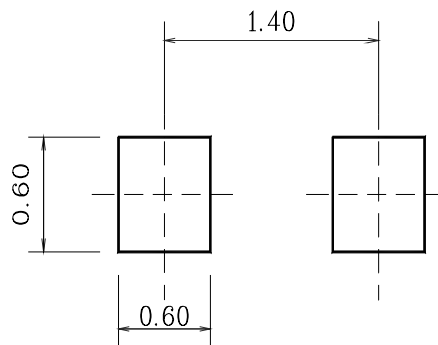


Package Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.60	0.70	0.80	
A1	0.00	—	0.10	
A2	0.50	0.60	0.70	
b	0.18	0.25	0.32	
c	0.08	0.12	0.16	
D	0.70	0.80	0.90	
E	1.50	1.60	1.70	
E1	1.10	1.20	1.30	
e1	0.40 BSC			
L	0.20	0.30	0.40	
θ1	4°	—	10°	

※ Recommend PCB solder land [Unit : mm]



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