



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 1 Scope

The present specifications shall apply to Sanken silicon diode, ES01A.

## 2 Outline

Type	Silicon Rectifier Diode (Mesa type)
Structure	Resin Molded
Applications	Pulse Rectification, etc

## 3 Flammability

UL94V-0 (Equivalent)

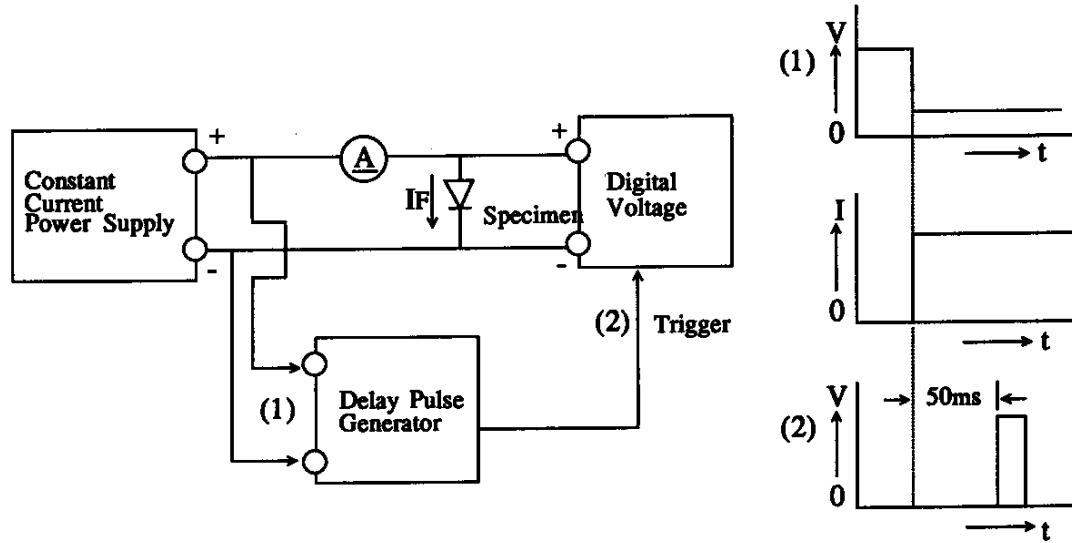
## 4 Absolute maximum ratings

No.	Item	Symbol	Unit	Rating	Conditions
1	Transient Peak Reverse Voltage	$V_{RSM}$	V	650	
2	Peak Reverse Voltage	$V_{RM}$	V	600	
3	Average Forward Current	$I_{F(AV)}$	A	0.7	Refer to derating curve in Section 7
4	Peak Surge Forward Current	$I_{FSM}$	A	20	50Hz. Half-Sinewave, one shot
5	Junction Temperature	$T_j$	°C	-40 to +150	
6	Storage Temperature	$T_{stg}$	°C	-40 to +150	

5 Electrical characteristics ( $T_a=25^\circ\text{C}$ , unless otherwise specified)

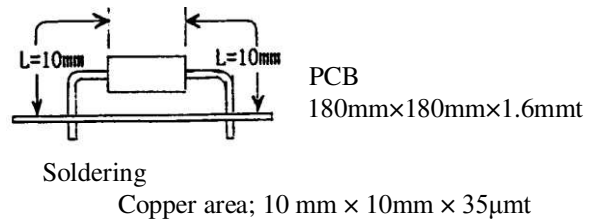
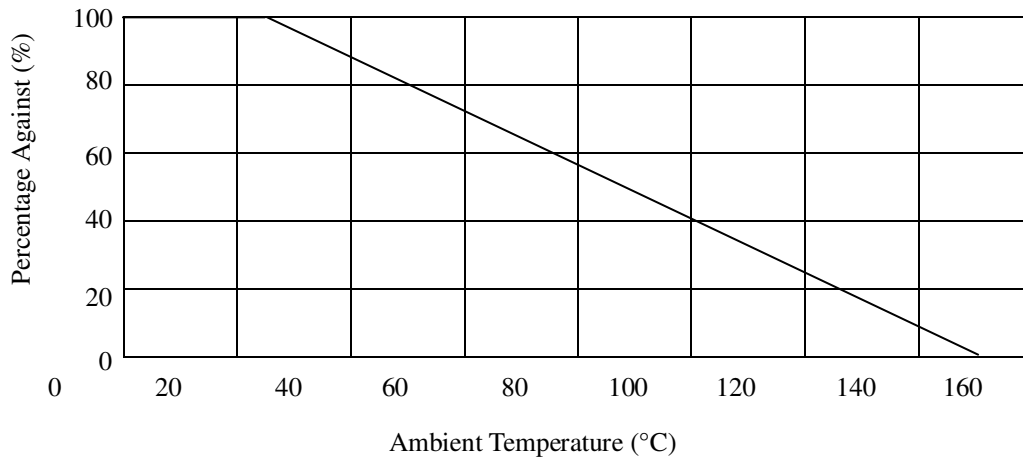
No.	Item	Symbol	Unit	Rating	Conditions
1	Forward Voltage Drop	$V_F$	V	3.0 max.	$I_F=0.8\text{A}$
2	Reverse Leakage Current	$I_R$	$\mu\text{A}$	10 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	$H \cdot I_R$	$\mu\text{A}$	200 max.	$V_R=V_{RM}$ , $T_a=100^\circ\text{C}$
4	Reverse Recovery Time	trr1	$\mu\text{s}$	1.5 max.	@ $I_F=I_{RP}=10\text{mA}$ 90% Recovery point
		trr2	$\mu\text{s}$	0.6 max.	@ $I_F=10\text{mA}$ , $I_{RP}=20\text{mA}$ , 75% Recovery point
5	Thermal Resistance	$R_{th(j-l)}$	°C/W	20 max.	Between Junction and Lead

6  $V_F$  test and test circuit



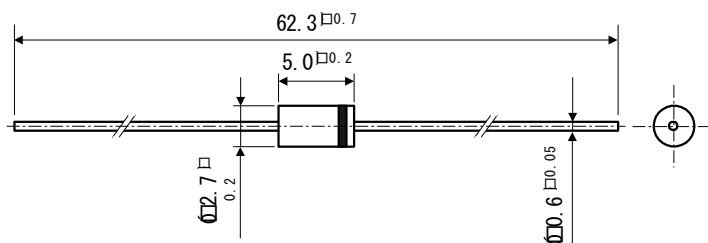
7 Derating

Derating to the ambient temperature.  
Power loss generated by voltage is not taken into consideration.



8 Package information

8-1 Package type, physical dimensions and material



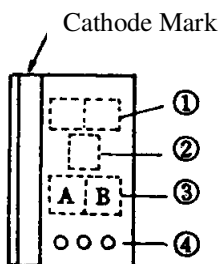
Dimensions in mm

- \*1 The allowance position of Body against the center of whole lead wire is 0.5mm(max.)
- \*2 The centric allowance of lead wire against center of physical body is 0.2mm(max.)
- \*3 The burr may exit up to 2mm from the body of lead

8-2 Appearance

The body shall be clean and shall not bear any stain, rust or flaw.

8-3 Marking



- ① Type number S0 as abbreviated of ES01.
- ② Class number : Z
- ③ Lot number
  - A : Last digit of calendar year
  - B : Month (From 1 to 9 for Jan. to Sep. O for Oct. N for Nov. D for Dec.)
- ④ Ten days ( · first ten days, · · second ten days, · · · third ten days)