

1. Scope

The present specifications shall apply to Sanken silicon diode, ES1F.

2. Outline

Type	Silicon Rectifier Diode (Mesa type)
Structure	Resin Molded Flammability: UL94V-0 (Equivalent)
Applications	Pulse Rectification, etc

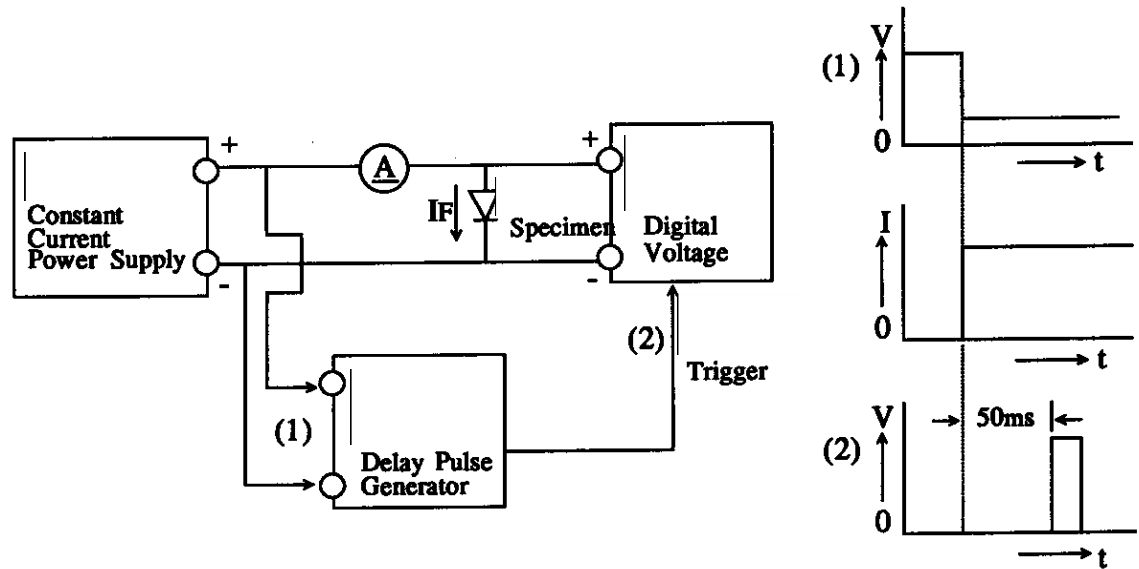
3. Absolute maximum ratings

No.	Item	Symbol	Unit	Rating	Conditions
1	Transient Peak Reverse Voltage	V_{RSM}	V	1500	
2	Peak Reverse Voltage	V_{RM}	V	1500	
3	Average Forward Current	$I_{F(AV)}$	A	0.5	Refer to Derating of 6
4	Peak Surge Forward Current	I_{FSM}	A	20	10msec. Sinewave, one shot
5	Junction Temperature	T_j	°C	-40~+150	
6	Storage Temperature	T_{stg}	°C	-40~+150	

4. Electrical characteristics (Ta=25°C, unless otherwise specified)

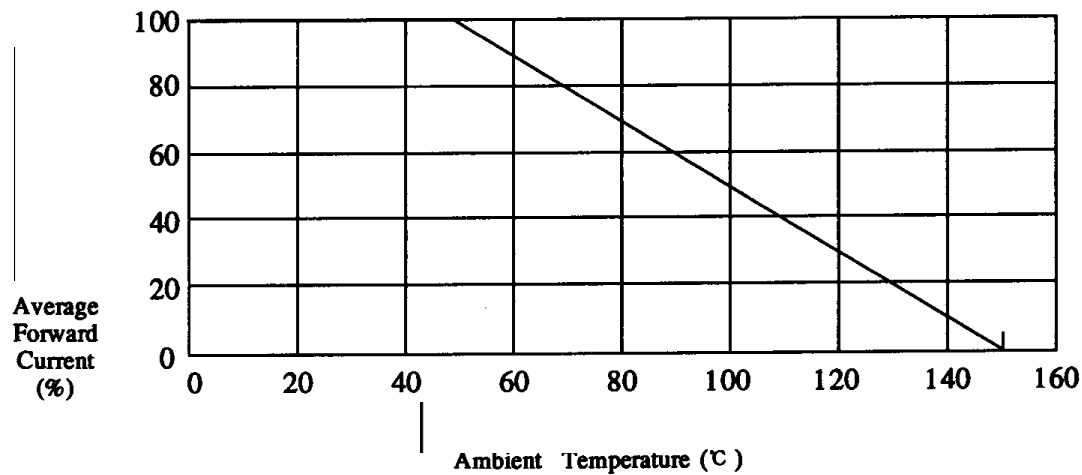
No.	Item	Symbol	Unit	Value	Conditions
1	Forward Voltage Drop	V_F	V	2.0 max.	$I_F=0.5A$
2	Reverse Leakage Current	I_R	μA	10 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	$H \cdot I_R$	μA	200 max.	$V_R=V_{RM}$, Ta=100°C
4	Reverse Recovery Time	t_{rr1}	μs	1.5 max.	@ $I_F=I_{RP}=10mA$ 90% Recovery point
		t_{rr2}	μs	0.6 max.	@ $I_F=10mA$, $I_{RP}=20mA$, 75% Recovery point
5	Thermal Resistance	$\theta(j-l)$	°C/W	17 max.	Between Junction and Lead

5. V_F test and test circuit



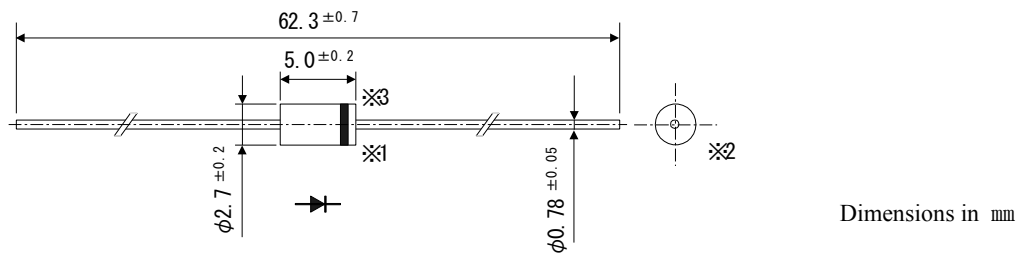
6. Derating

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



7. Package information

7-1 Package type, physical dimensions and material

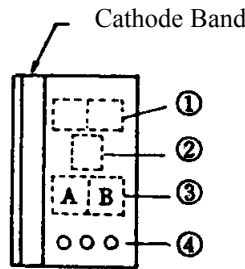


- *1 The allowance position of Body against the center of whole lead wire is 0.5mm(max.)
- *2 The centric allowance of lead wire against center of physical body is 0.3mm(max.)
- *3 The burr may exit up to 2mm from the body of lead

7-2 Appearance

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

7-3 Marking



- ① Type number S1 as abbreviated of ES1F.
- ② Class number F
- 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)

The type No. V_{RM} rank and Lot No. are to be marked in white