

1. Scope

The present specifications shall apply to Sanken silicon diode, FML-13S.

2. Outline

Type	Silicon Rectifier Diode	
Structure	Resin Molded	Flammability : UL94V-0 (Equivalent)
Applications	High Frequency Rectification	

3. Absolute maximum ratings

No.	Item	Symbol	Unit	Rating	Conditions
1	Transient Peak Reverse Voltage	V_{RSM}	V	300	
2	Peak Reverse Voltage	V_{RM}	V	300	
3	Average Forward Current	$I_{F(AV)}$	A	5	$T_c=122^{\circ}\text{C}$ Sinewave
4	Peak Surge Forward Current	I_{FSM}	A	40	10msec. Half sinewave, one shot
5	I^2t Limiting Value	I^2t	A^2s	8	$1\text{msec} \leq t \leq 10\text{msec}$
6	Junction Temperature	T_j	$^{\circ}\text{C}$	-40~+150	
7	Storage Temperature	T_{stg}	$^{\circ}\text{C}$	-40~+150	

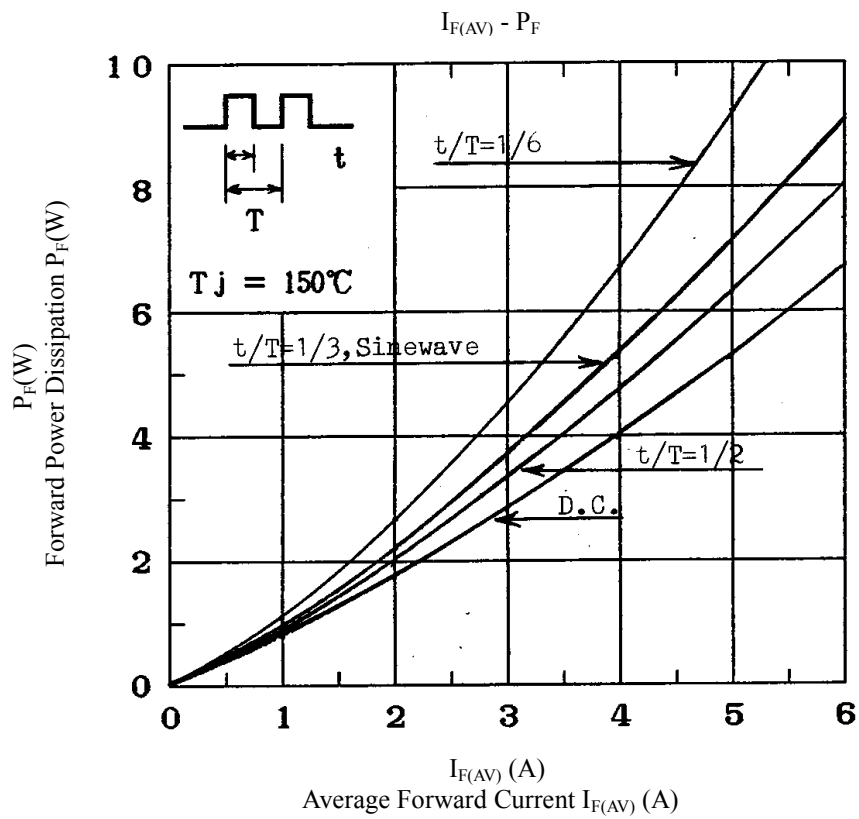
No.1,2,4&5 show ratings per one chip.

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

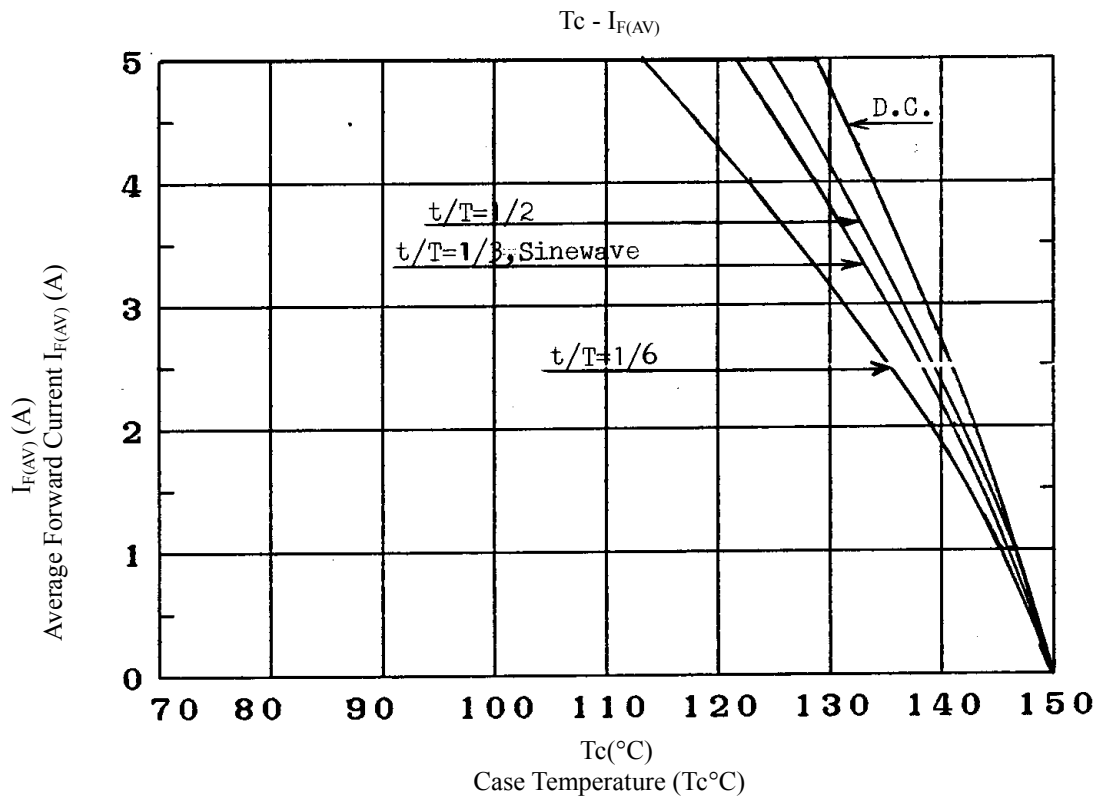
No.	Item	Symbol	Unit	Value	Conditions
1	Forward Voltage Drop	V_F	V	1.3 max.	$I_F=2.5\text{A}$
2	Reverse Leakage Current	I_R	μA	50 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	$H \cdot I_R$	μA	250 max.	$V_R=V_{RM}$, $T_a=100^{\circ}\text{C}$
4	Reverse Recovery Time	trr1	ns	50 max.	$I_F=I_{RP}=100\text{mA}$ 90% Recovery point, $T_a=25^{\circ}\text{C}$
		trr2	ns	35 max.	$I_F=100\text{mA}$, $I_{RP}=200\text{mA}$ 75% Recovery point, $T_a=25^{\circ}\text{C}$
5	Thermal Resistance	$R_{th(j-c)}$	$^{\circ}\text{C}/\text{W}$	4.0 max.	Between Junction and case

No.1,2,3&4 show characteristics per one chip.

5. Characteristics

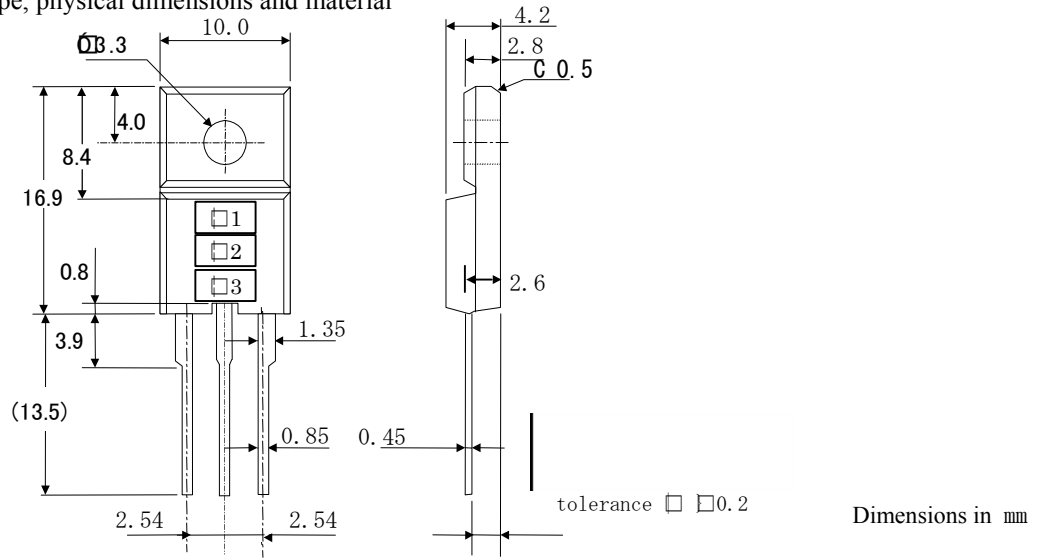


6. Derating



7. Package information

7-1 Package type, physical dimensions and material



7-2 Appearance

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

7-3 Marking

Type Name	Marking		
	*1 Type Name	*2 Polarity	*3 Lot number
FML-13S	FML13S		1st letter: Last digit of year 2nd letter: Month From 1 to 9 for Jan. to Sep., O for Oct., N for Nov., D for Dec. 3rd & 4th letter: Day ex. 4806 (Aug. 6, 2004)