1. Scope

The present specifications shall apply to Sanken silicon diode MPL-102S.

2. Outline

Type	Silicon Diode
Structure	Resin Molded
Applications	Pulse Rectification, etc

3. Flammability

UL94V-0 (Equivalent)

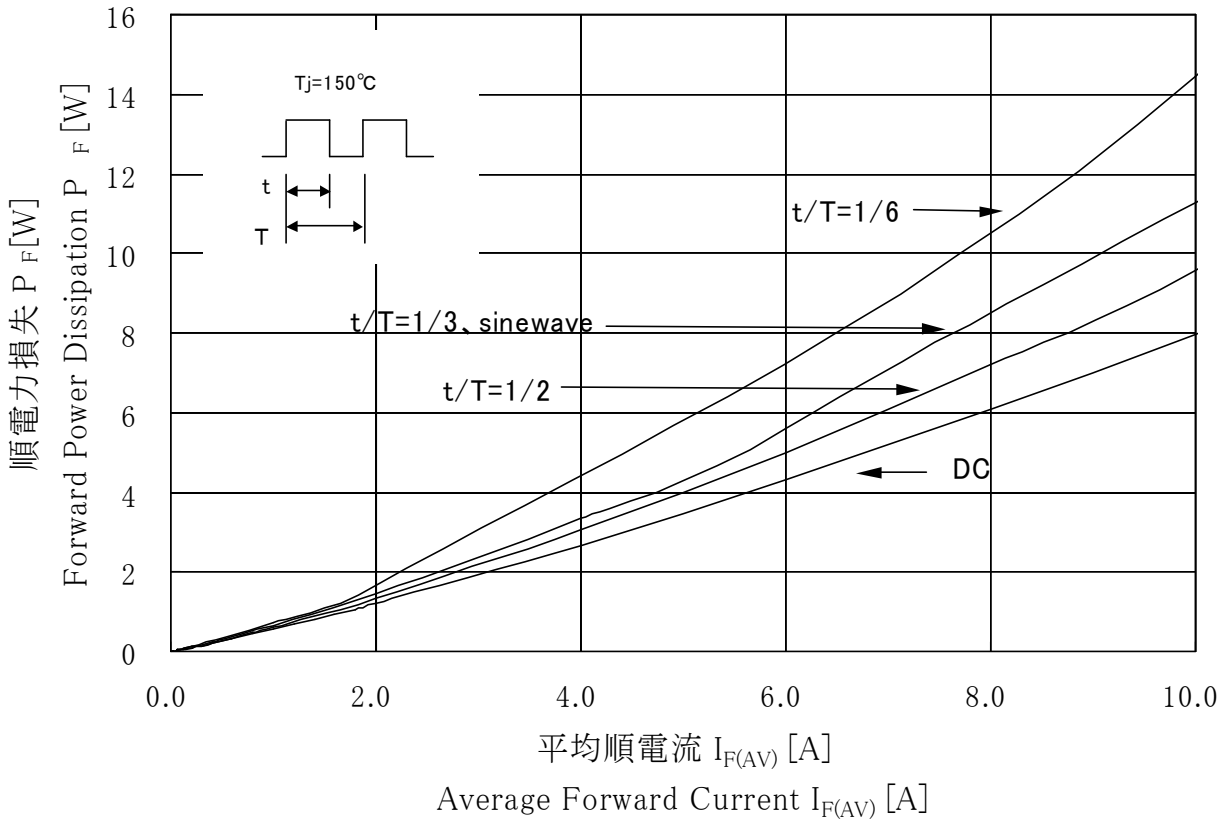
4. Absolute maximum ratings

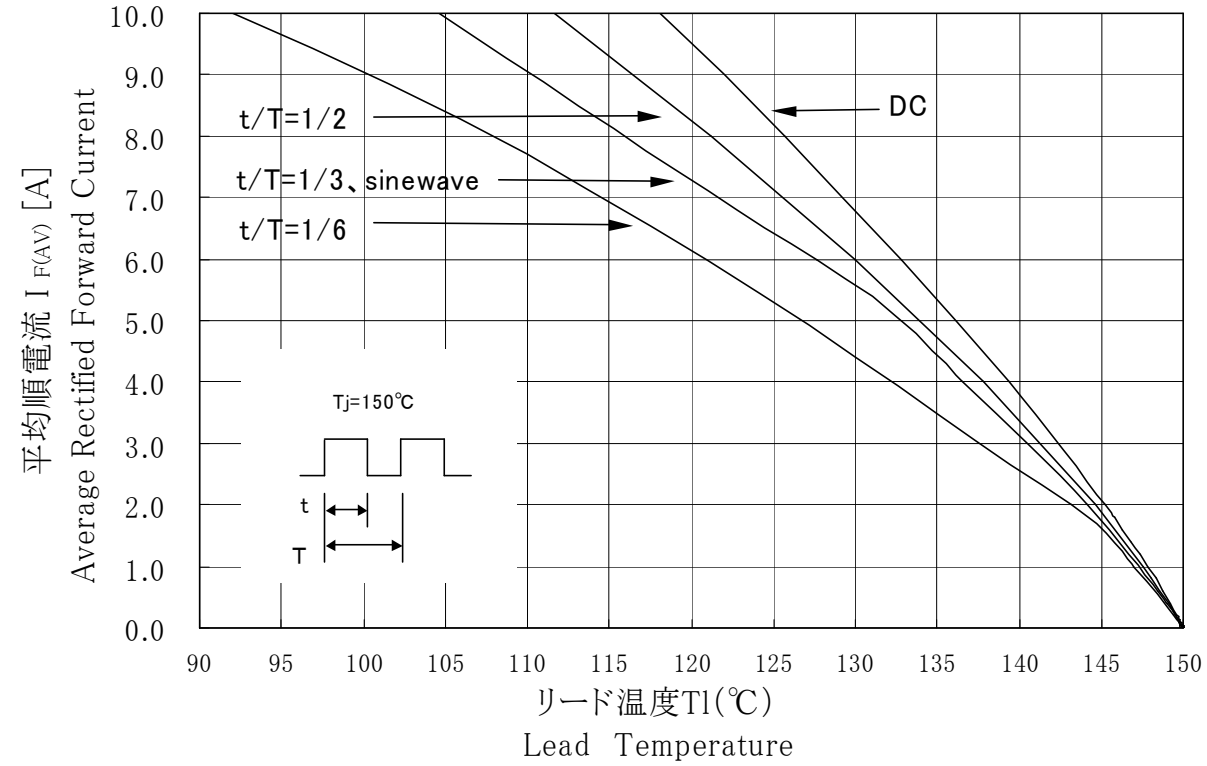
				MPL-102S	
No.	Item	Symbol	Unit	Rating	Conditions
1	Transient Peak Reverse Voltage	V_{RSM}	V	200	
2	Peak Reverse Voltage	V_{RM}	V	200	
3	Average Forward Current	$I_{F(AV)}$	A	10	Refer to Derating of 6
4	Peak Surge Forward Current	I_{FSM}	A	65	10msec. Half sine wave, one shot
5	I^2t Limiting Value	I^2t	A^2s	21	
6	Junction Temperature	T_j	°C	-40~+150	
7	Storage Temperature	T_{stg}	°C	-40~+150	

5. Electrical Characteristics (Ta=25°C, unless otherwise specified)

No.	Item	Symbol	Unit	Value	Conditions
1	Forward Voltage Drop	V_F	V	0.98 max.	I_F=5.0A
2	Reverse Leakage Current	I_R	μA	100 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	H• I_R	μA	200 max.	$V_R=V_{RM}$, Tj=150°C
4	Reverse Recovery Time	t_{rr1}	ns	40 max.	$I_F=I_{RP}$=100mA, Tj=25°C 90% Recovery point
		t_{rr2}	ns	30 max.	I_F=100mA, I_R=200mA, Tj=25°C 75% Recovery point
5	Thermal Resistance	$R_{th(j-C)}$	°C /W	2.5 max.	Between junction and case

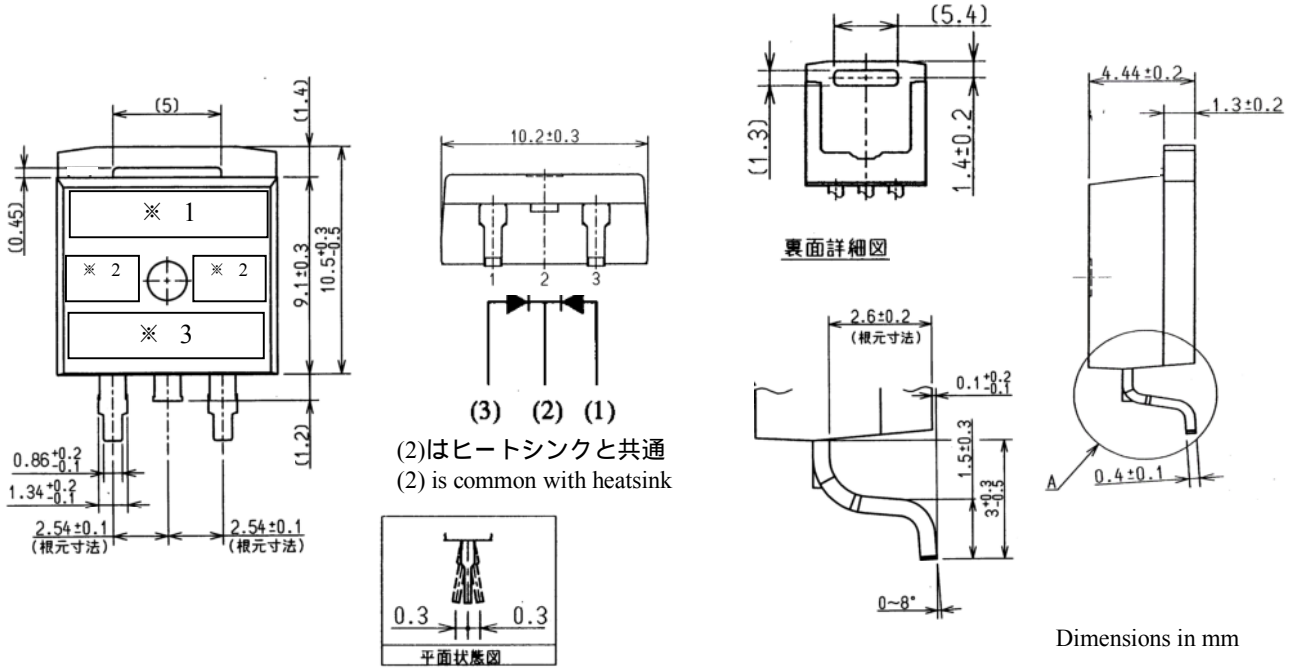
6. Derating


順電力損失 P F[W]
Forward Power Dissipation P F [W]
16
14
12
10
8
6
4
2
0
Tj=150℃
t
T
t/T=1/6
t/T=1/3、sinewave
t/T=1/2
DC
0.0
2.0
4.0
6.0
8.0
10.0
平均順電流 IF(AV) [A]
Average Forward Current IF(AV) [A]


平均順電流 I F(AV) [A]
Average Rectified Forward Current
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
t/T=1/2
t/T=1/3、sinewave
t/T=1/6
DC
Tj=150℃
t
T
90
95
100
105
110
115
120
125
130
135
140
145
150
リード温度Tl(℃)
Lead Temperature

7. Package information

7-1 Package type and physical dimensions



Dimensions in mm

7-2 Appearance

The body shall be clean and shall not bear any stain, rust or flaw.
The color of the case will be black.

7-3 Marking

Type name	Marking		
	*1 Type name	*2 Lot number	*3 Polarity
MPL-102S	MPL-102S	1st letter : Last digit of year 2nd letter : Month Jan.~Sep.:1~9 O for Oct. , N for Nov. , D for Dec. 3rd&4th letter : Day Ex. 7926(September 26 , 2007)	