

1 Scope

The present specifications shall apply to FMN-4306S.

2 Outline

High Frequency Rectification

| | |
|--------------|------------------------------|
| Type | Silicon Diode |
| Structure | Resin Molded |
| Applications | High Frequency Rectification |

3 Flammability

UL94V-0(Equivalent)

4 Absolute maximum ratings

| No. | Item | Symbol | Unit | Rating | Conditions |
|-----|--------------------------------|-------------|-------------|-------------|--|
| 1 | Transient Peak Reverse Voltage | V_{RSM} | V | 600 | |
| 2 | Peak Reverse Voltage | V_{RM} | V | 600 | |
| 3 | Average Forward Current | $I_{F(AV)}$ | A | 30 | Refer to derating curve in Section 7 |
| 4 | Peak Surge Forward Current | I_{FSM} | A | 150 | 10ms. Half sine wave, one shot |
| 5 | I^2t Limiting Value | I^2t | A^2s | 112.5 | $1\text{ ms} \leq t \leq 10\text{ ms}$ |
| 6 | Junction Temperature | T_j | $^{\circ}C$ | -40 to +150 | |
| 7 | Storage Temperature | T_{stg} | $^{\circ}C$ | -40 to +150 | |

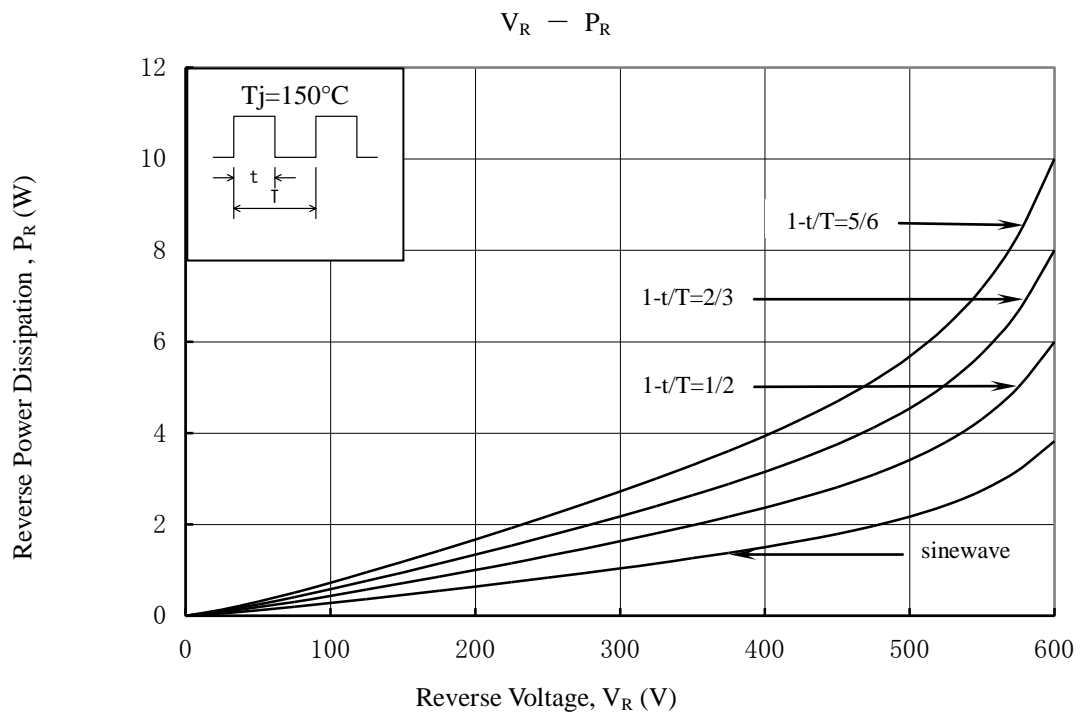
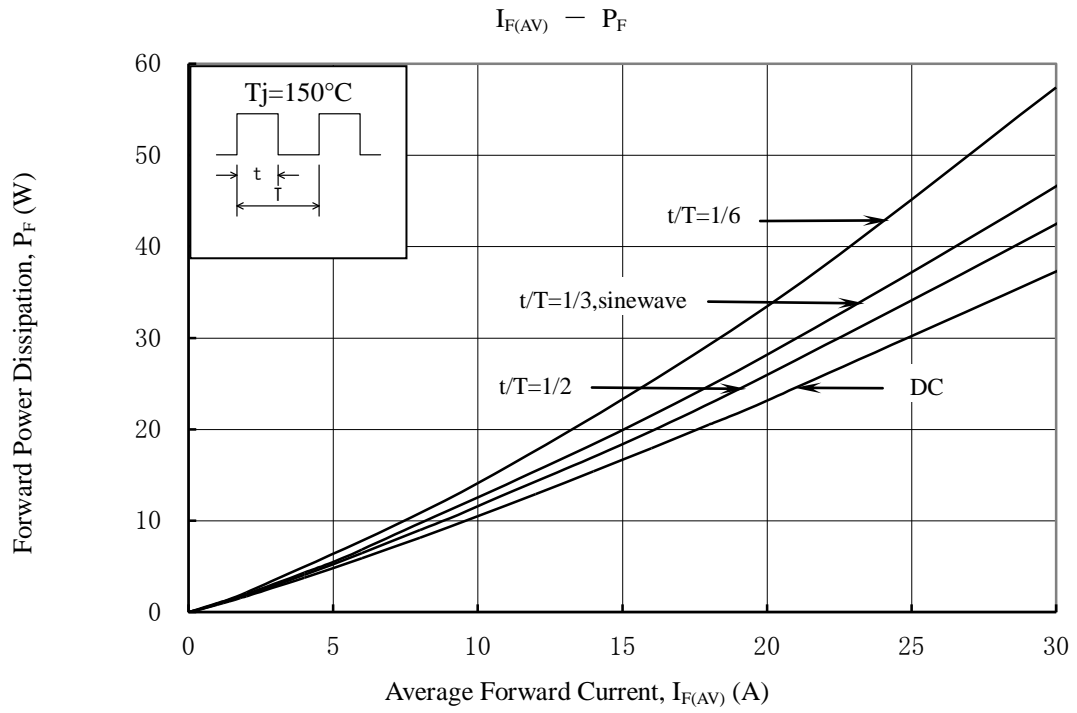
No.1, 2, 4 and 5 show ratings per one chip.

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

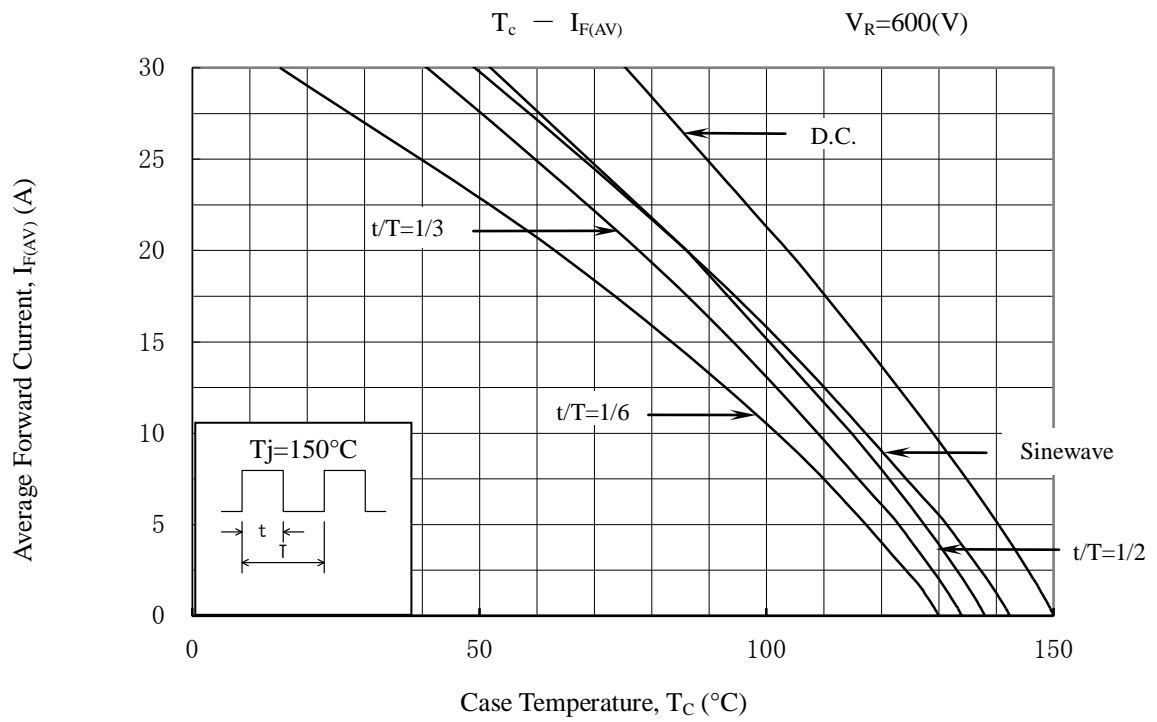
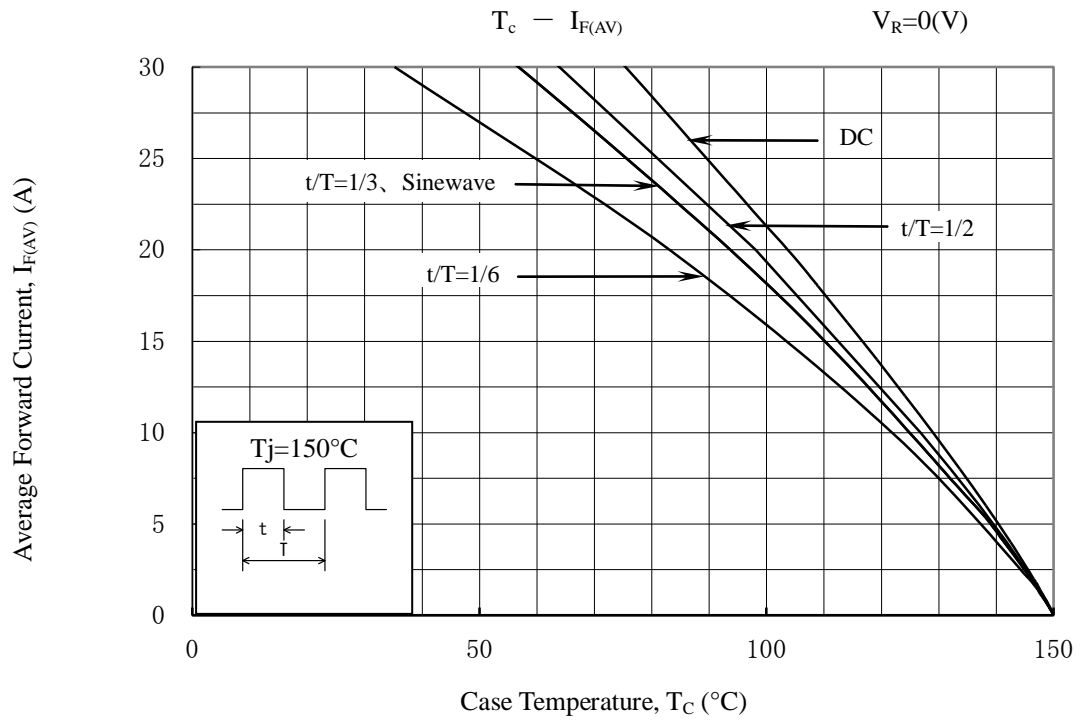
| No. | Item | Symbol | Unit | Value | Conditions |
|-----|--|---------------|---------------|----------|--|
| 1 | Forward Voltage Drop | V_F | V | 1.3 max. | $I_F=15A$ |
| 2 | Reverse Leakage Current | I_R | μA | 100 max. | $V_R=V_{RM}$ |
| 3 | Reverse Leakage Current Under High Temperature | $H \cdot I_R$ | mA | 10 max. | $V_R=V_{RM}, T_j=150^{\circ}C$ |
| 4 | Reverse Recovery Time | T_{rr1} | ns | 100 max | $I_F=I_{RP}=100mA$ 90% Recovery point, $T_j=25^{\circ}C$ |
| | | T_{rr2} | ns | 50 max | $I_F=100mA, I_{RP}=200mA$ 75% Recovery point, $T_j=25^{\circ}C$ |
| 5 | Thermal Resistance | $R_{th(j-c)}$ | $^{\circ}C/W$ | 2.0 max. | Between Junction and case |

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

6 Characteristics

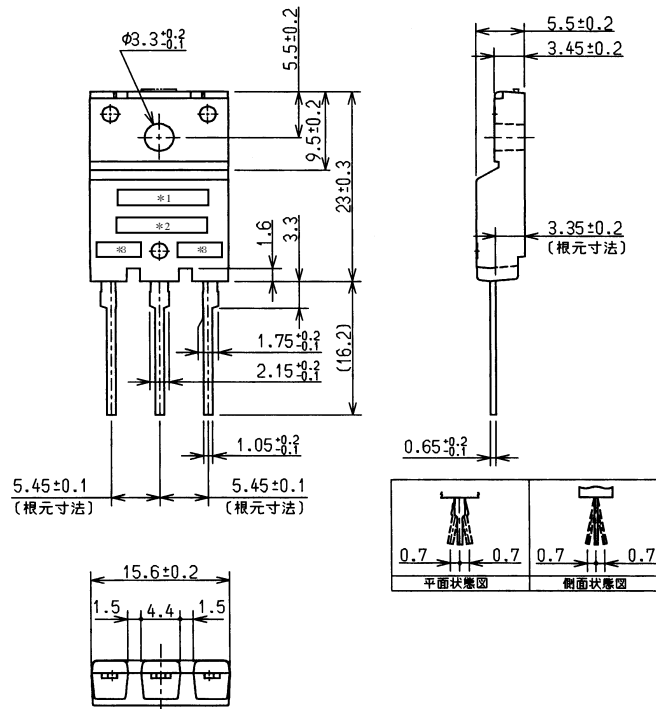


7 Derating



8 Package information

8-1 Package type, physical dimensions and material



tolerance — ± 0.2 Dimensions in mm

8-2 Appearance

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

8-3 Marking

| Type Name | Marking | | |
|-----------|-----------------|----------------|--|
| | *1 is type name | *2 is polarity | *3 is lot number |
| FMN-4306S | N4306S | | 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. 2117 (Jan. 17, 2002) |