

1. Scope

The present specifications shall apply to an FMX-G12S

2. Outline

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

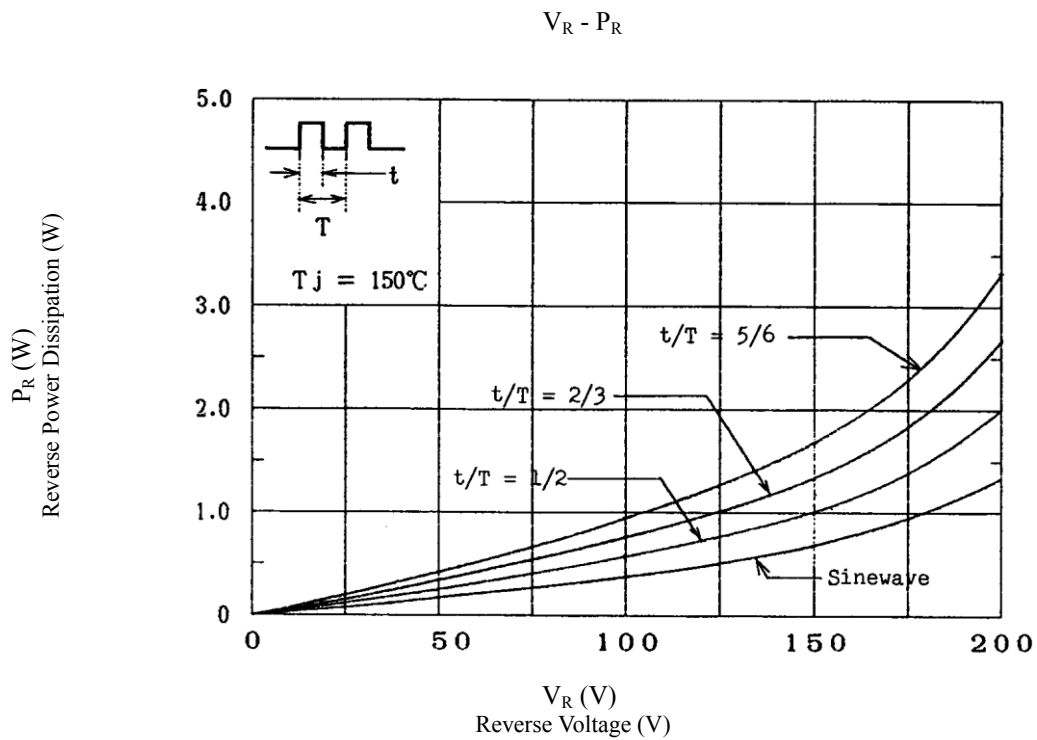
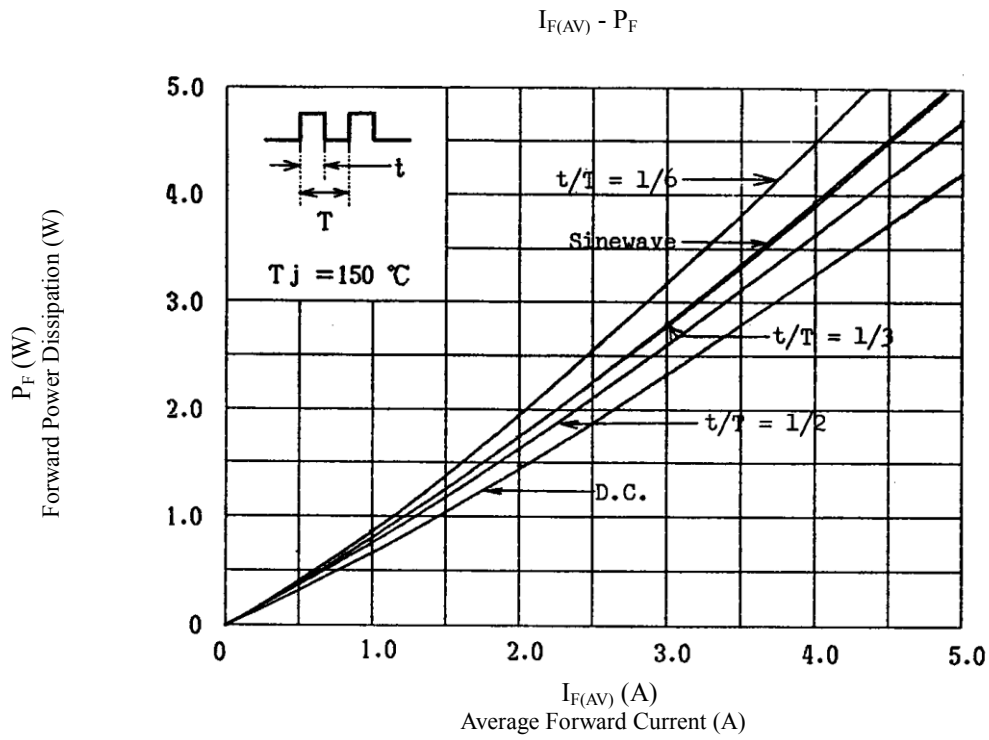
3. Absolute maximum ratings

| No. | Item | Symbol | Unit | Rating | Conditions |
|-----|--------------------------------|-------------|----------------------|----------|--------------------------------------|
| 1 | Transient Peak Reverse Voltage | V_{RSM} | V | 200 | |
| 2 | Peak Reverse Voltage | V_{RM} | V | 200 | |
| 3 | Average Forward Current | $I_{F(AV)}$ | A | 5.0 | $T_c=123^{\circ}\text{C}$, Sinewave |
| 4 | Peak Surge Forward Current | I_{FSM} | A | 65 | 10msec. Half sinewave, one shot |
| 5 | I^2t Limiting Value | I^2t | A^2s | 21 | |
| 6 | Junction Temperature | T_j | $^{\circ}\text{C}$ | -40~+150 | |
| 7 | Storage Temperature | T_{stg} | $^{\circ}\text{C}$ | -40~+150 | |
| 8 | Screwing Torque | | N · m | 0.59 | |
| 9 | Dielectric Strength | | kV | A.C.1.0 | Lead and case (1minute) |

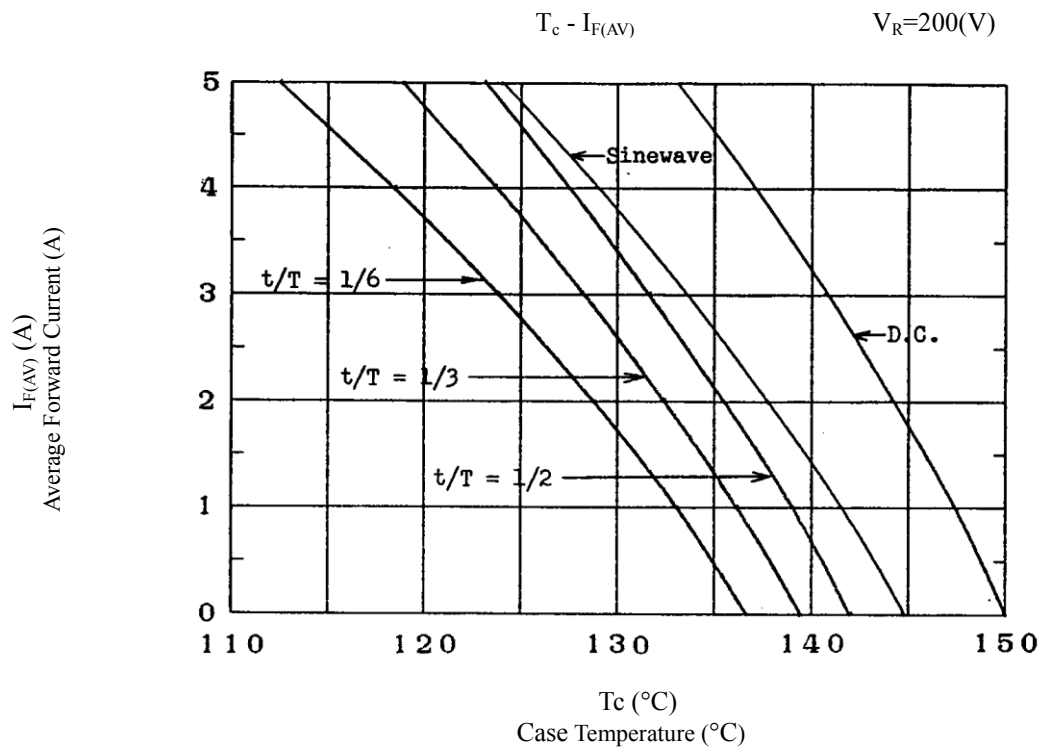
4. Electrical characteristics ($T_a=25^{\circ}\text{C}$, unless otherwise specified)

| No | Item | Symbol | Unit | Value | Conditions |
|----|--|---------------|-----------------------------|-----------|--|
| 1 | Forward Voltage Drop | V_F | V | 0.98 max. | $I_F=5.0\text{A}$ |
| 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 | 20 max. | $V_R=V_{RM}$, $T_j=150^{\circ}\text{C}$ |
| 4 | Reverse Recovery Time | trr1 | ns | 30 max. | $I_F=I_R=500\text{mA}$ 90% Recovery point, $T_j=25^{\circ}\text{C}$ |
| | | trr2 | ns | 25 max. | $I_F=500\text{mA}$, $I_R=1000\text{mA}$, 75% Recovery point, $T_j=25^{\circ}\text{C}$ |
| 5 | Thermal Resistance | $R_{th(j-c)}$ | $^{\circ}\text{C}/\text{W}$ | 4.0 max. | Between Junction and case |

5. Characteristics

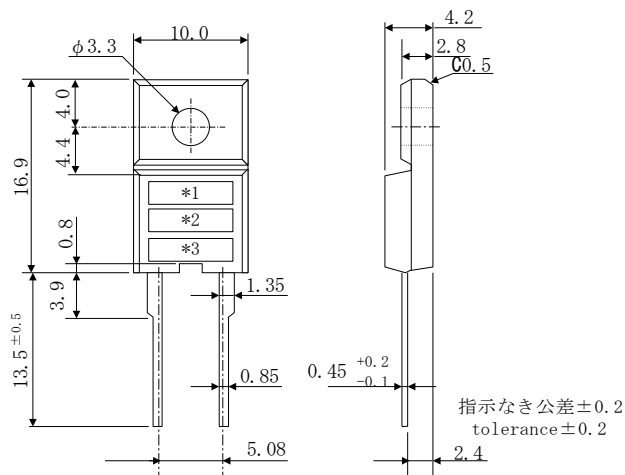


6. Derating



7. Package information

7-1 Package type, physical dimensions and material



Dimensions in mm

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 |
| FMX-G12S | FMXG12 | S | 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. 4128 (Jan. .,28, 2004) |