

## 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

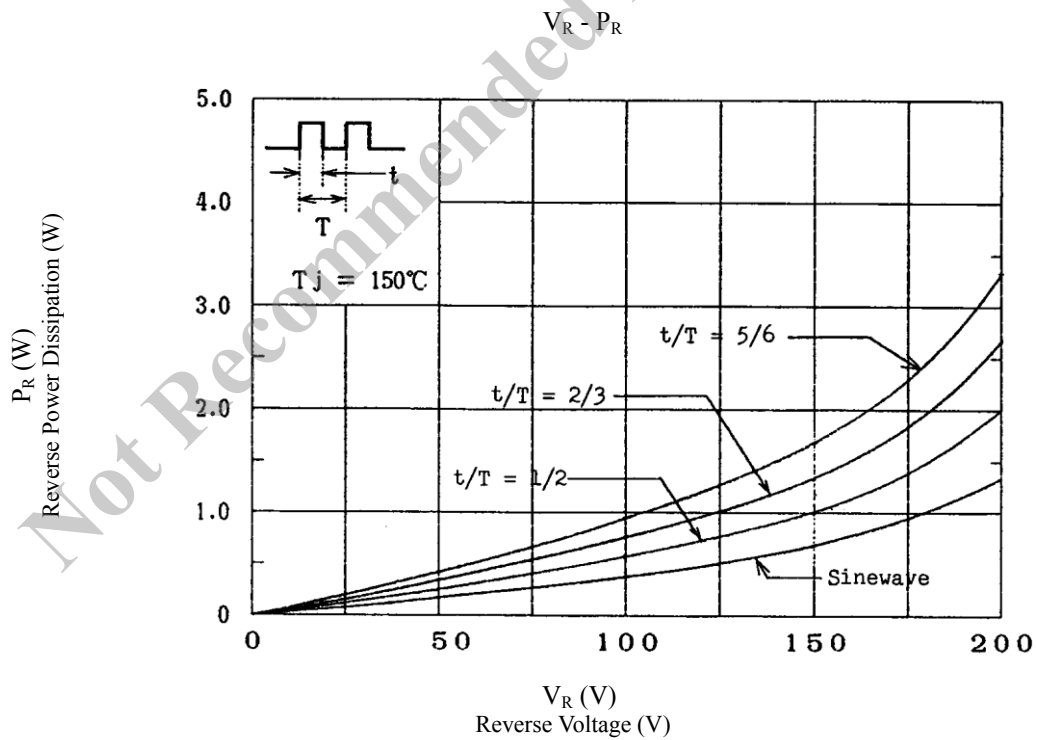
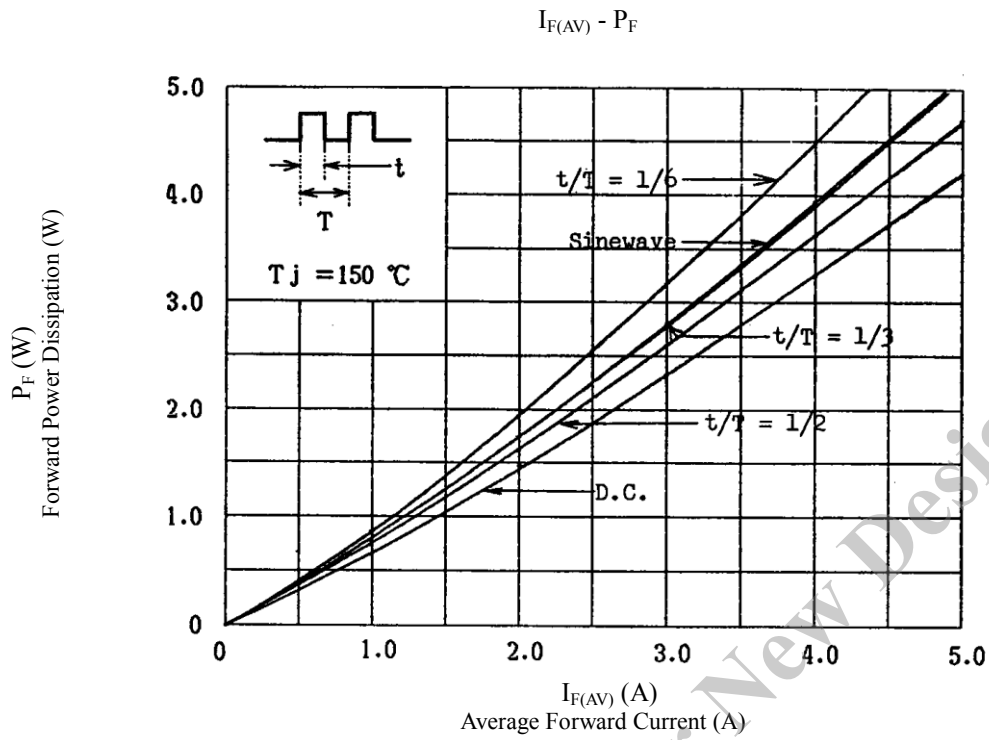
## 3. Absolute maximum ratings

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	$I^2t$	$\text{A}^2\text{s}$	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)

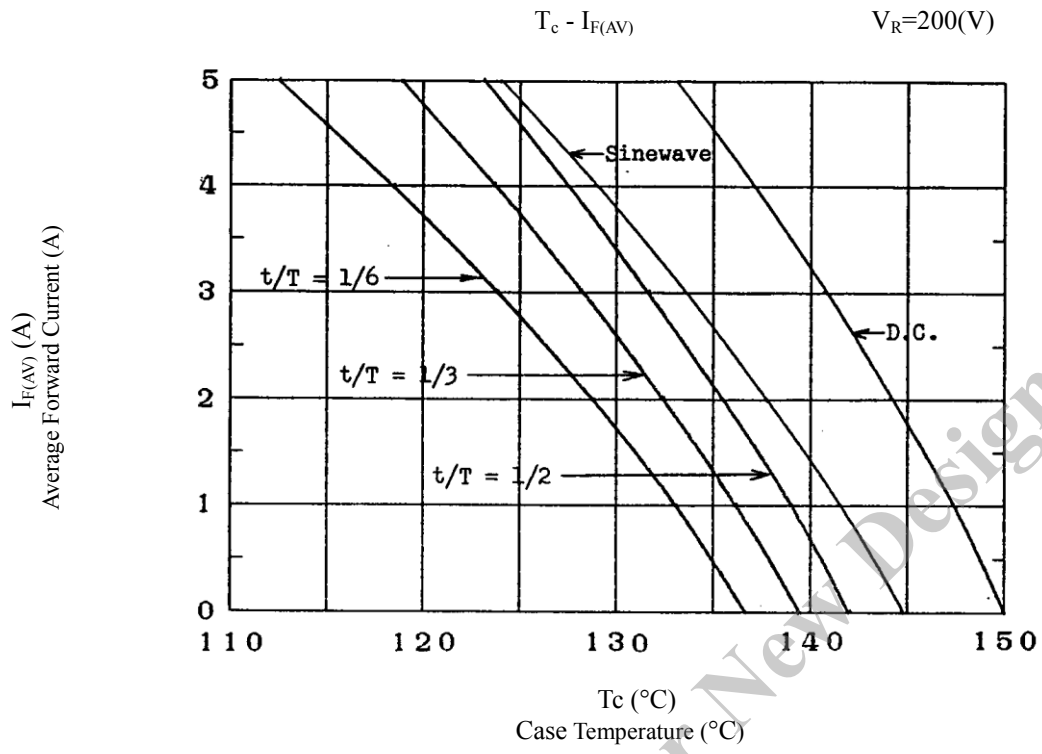
4. Electrical characteristics ( $T_a=25^\circ\text{C}$ , unless otherwise specified)

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	$I_R$	$\mu\text{A}$	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



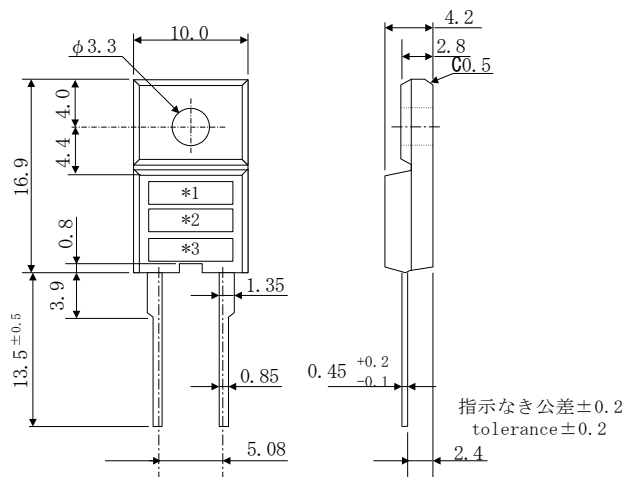
6. Derating



Not Recommended for New Designs

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)