SANKEN ELECTRIC

FMXS-2206S

Fast Recovery Diode

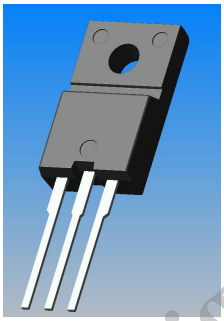
Aug, 2011

General Description

This product is FRD that has excellent high speed performance.
It achieved a balance between high speed at high temperature operates and low-VF.

Package

FM20 (TO-220 Full Mold)



Applications

- An DC-DC converters.
- A high current secondary rectifier.
- A high frequencies rectifier circuit, etc.

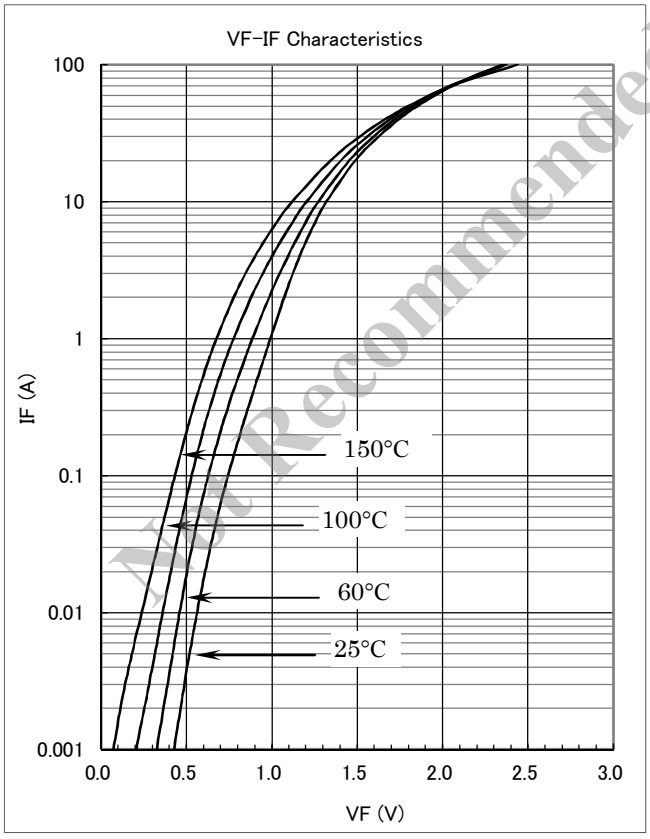
Features

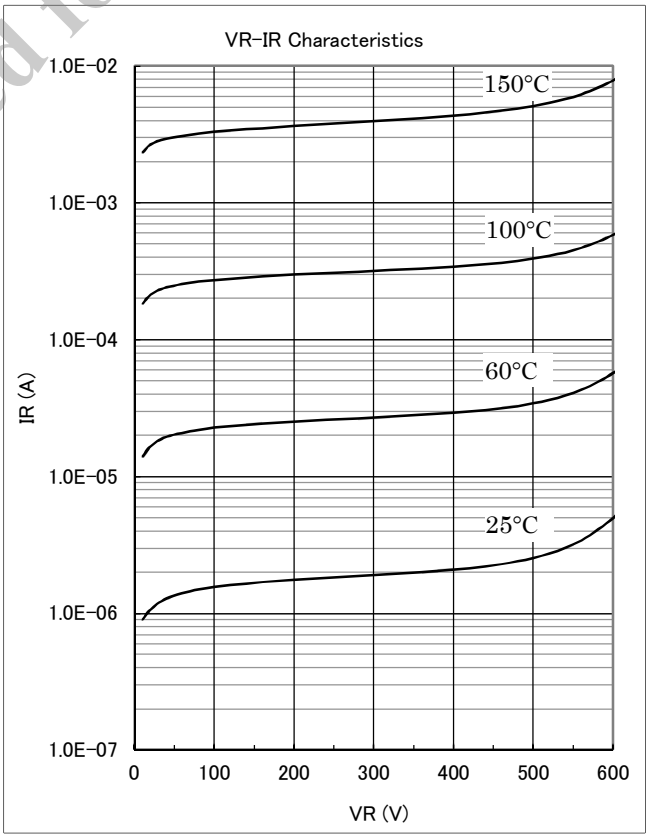
- An ultrafast recovery diode.
- A balance low-VF and high speed performance at high temperature.
- A great isolation performance due to full mold package.

Key Specifications

Item	Unit	Rating	Conditions
V_{RM}	V	600	
V_F	V	1.5	I_F=10A
$I_{F(AV)}$	A	20	
t_{rr}	ns	30	

Typical Characteristics





VF-IF&VR-IR show ratings per one chip.

✶ **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	20	
4	Peak Surge Forward Current	I_{FSM}	A	100	10msec. Half sinewave, one shot
5	I^2t Limiting Value	I^2t	A^2s	50	1msec ≤ t ≤ 10msec
6	Junction Temperature	T_j	°C	-40～+150	
7	Storage Temperature	T_{stg}	°C	-40～+150	

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

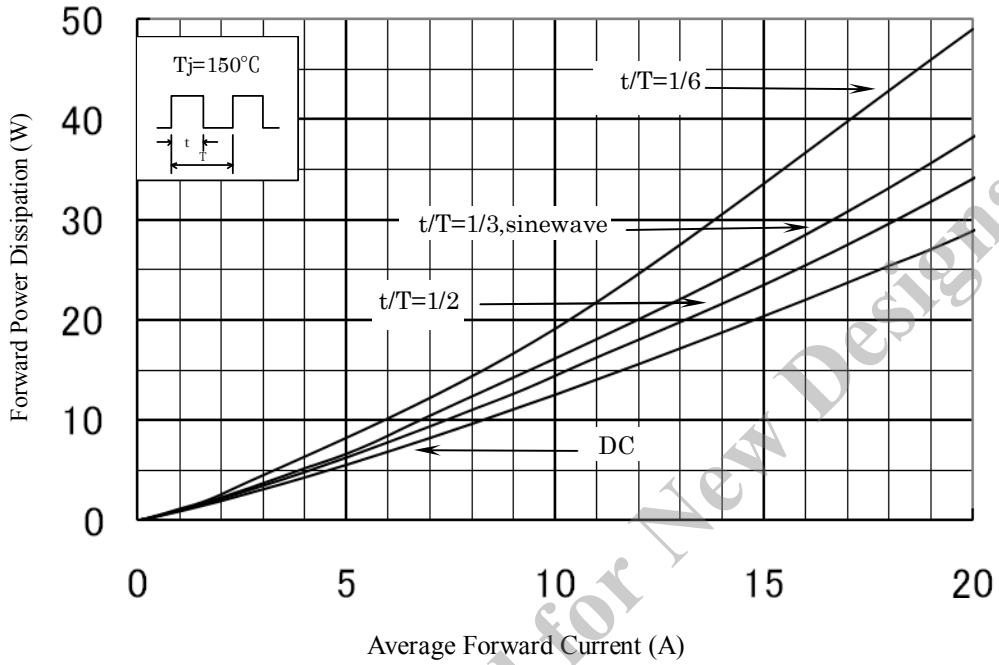
✶ **Electrical characteristics (Ta=25°C, unless otherwise specified)**

No.	Item	Symbol	Unit	Value	Conditions
1	Forward Voltage Drop	V_F	V	1.5 max.	I_F=10A
2	Reverse Leakage Current	I_R	uA	50 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	H-I_R	mA	30 max.	$V_R=V_{RM}$, T_j=150°C
4	Reverse Recovery Time	trr1	ns	30 max.	I_F= I_{RP}=500mA, T_j=25°C, 90% Recovery point
		trr2	ns	25 max.	I_F=500mA,I_{RP}=1A, 75% Recovery point , T_j=25°C
5	Thermal Resistance	$R_{th(j-l)}$	°C/W	4 max.	Between Junction and case

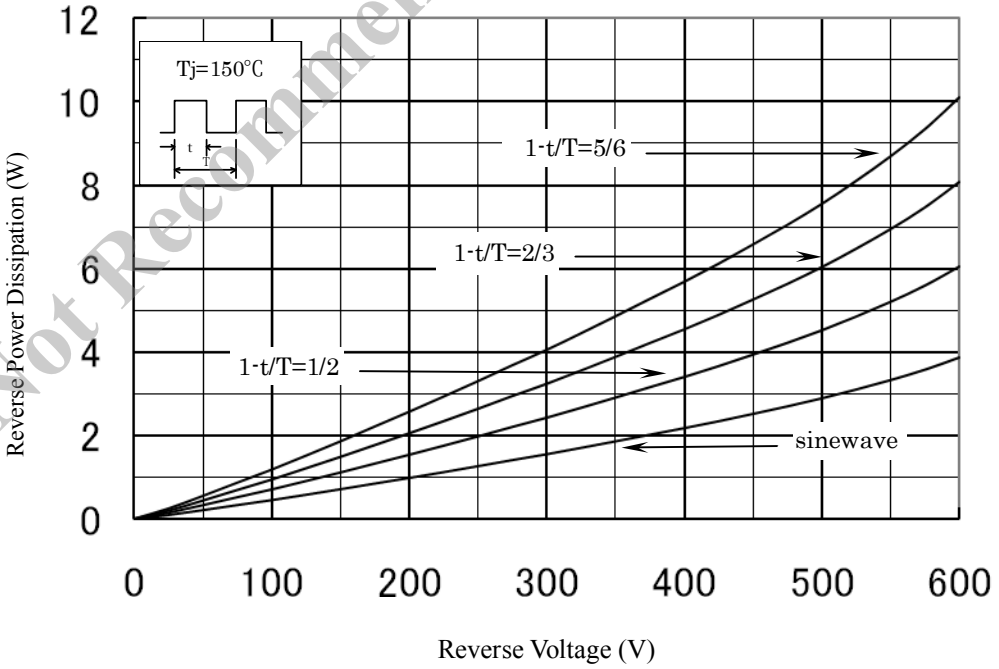
No.1,2,3&4 show characteristics per one chip.

✶ **Characteristics**

$I_{F(AV)}$ – P_F

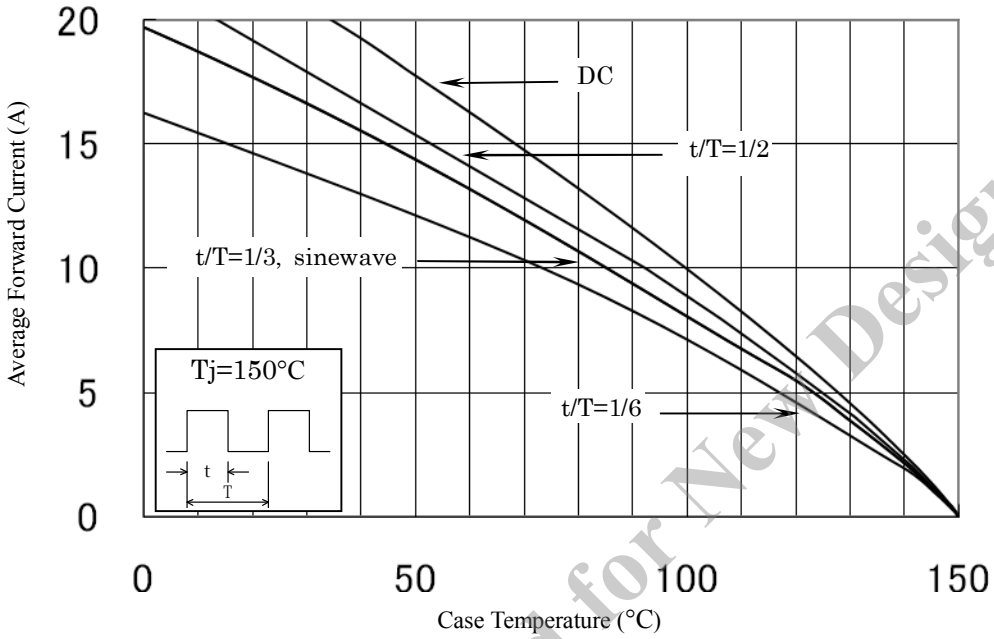


V_R – P_R

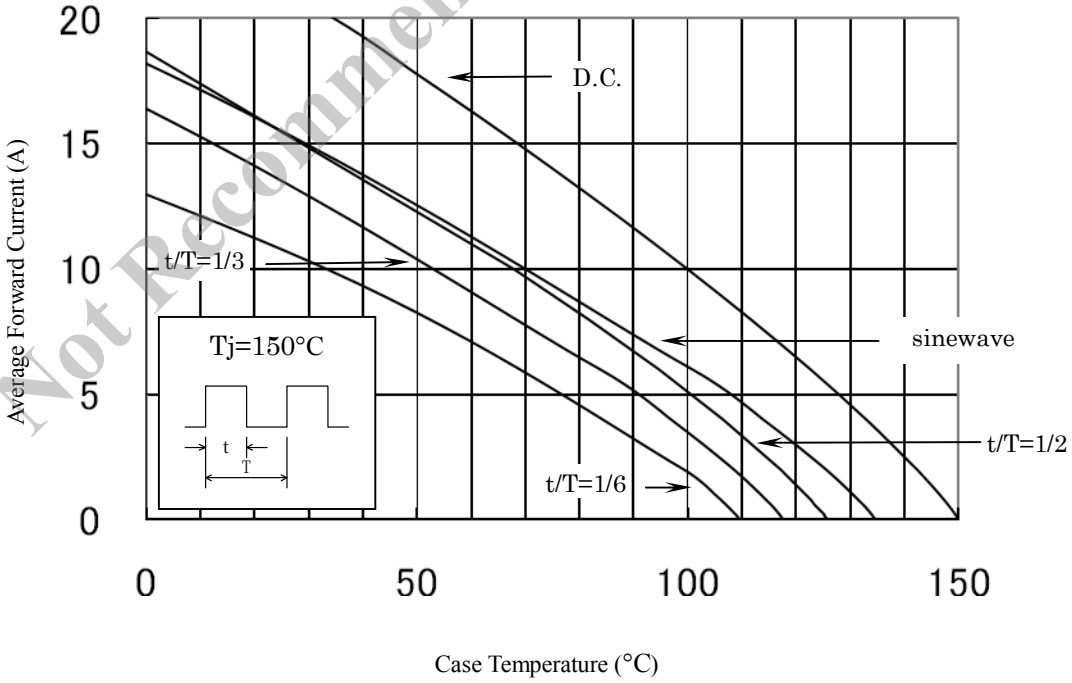


✶ **Derating**

Tc — $I_{F(AV)}$ V_R=0(V)



Tc — $I_{F(AV)}$ V_R=600(V)



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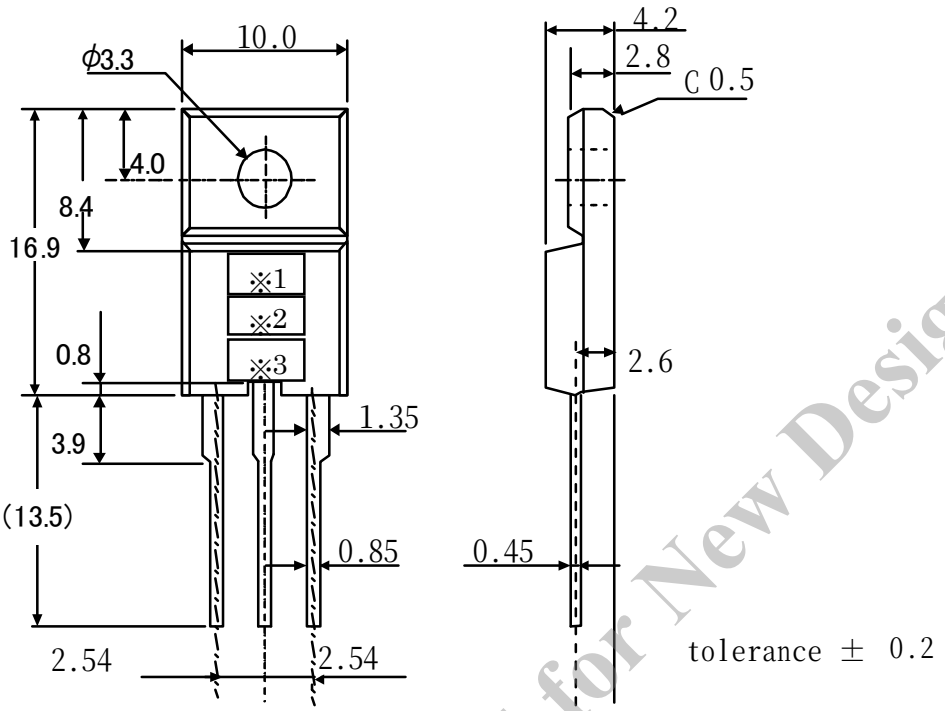
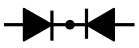
✶ Package information **(mm)**



Type Name	Marking		
	※1 Type Name	※2 Polarity	※3 Lot number
FMXS-2206S	XS2206		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. 0O04 (Oct. 4, 2010)