



# THE DATASHEET OF FMX-4206S



**FMX-4206S**

Jan. 2010

Fast Recovery Diode

**General Description**

FRD that has great balance low-VF and high speed performance is incorporated into high-current package TO-3PF.

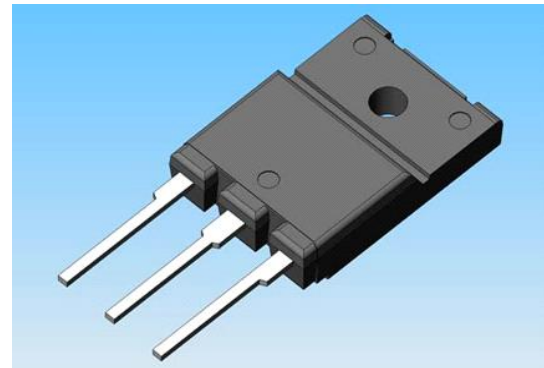
It achieved a balance between high speed at high temperature operates and low-VF.

**Applications**

- DCM or CCM type PFC circuit  
(Power factor improvement circuit)
- DC-DC converters.  
(Forward type/ flyback type/ current resonance type)

**Features**

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

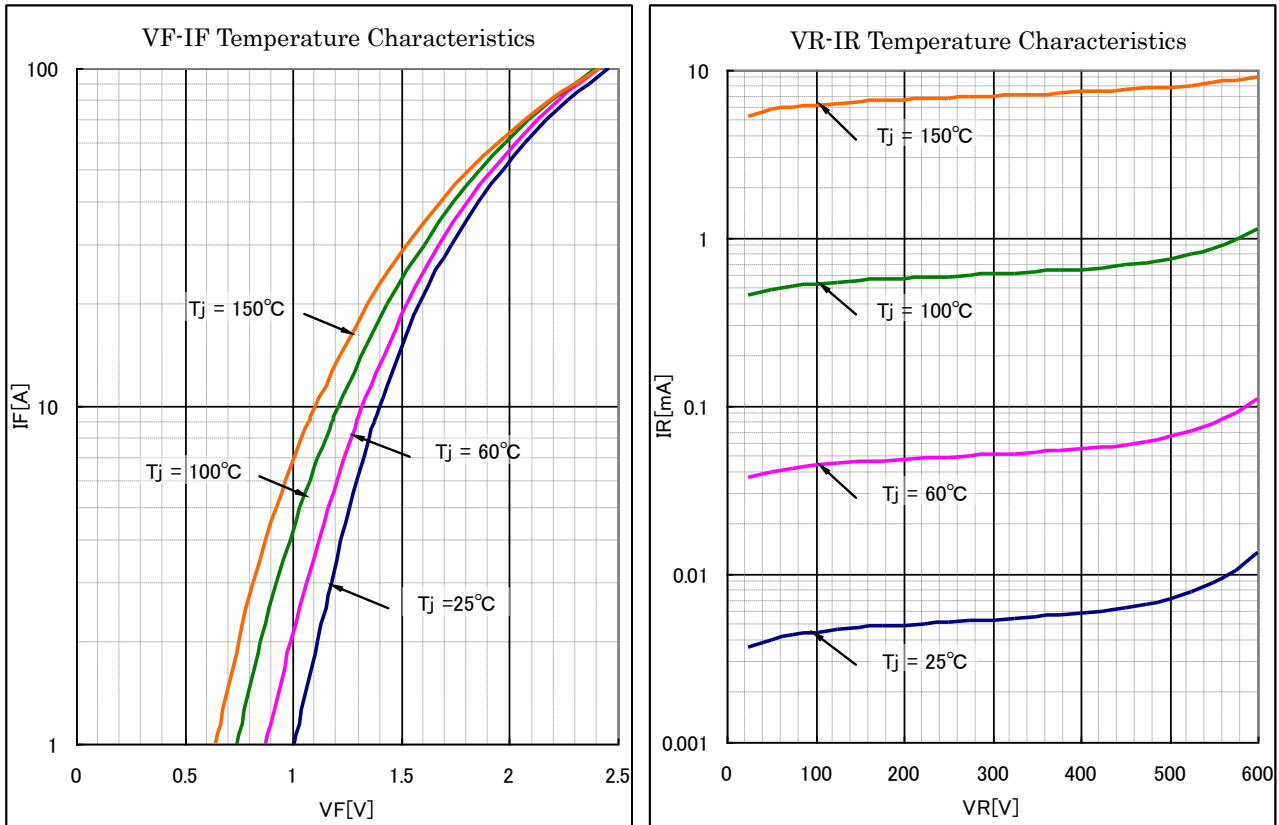
**Package (TO-3PF 3pin)****Key Specifications**

Item	Unit	Rating	Conditions
$V_{RM}$	V	600	
$V_F$	V	1.5	$I_F=10A$
$I_{F(AV)}$	A	20	
$t_{rr1}$	ns	30	
$t_{rr2}$	ns	—	

The contents in this document are subject to changes, for improvement and other purposes, without notice.

Make sure that this is the latest version of the document before use.

Typical Characteristics



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

The contents in this document are subject to changes, for improvement and other purposes, without notice.  
Make sure that this is the latest version of the document before use.

FMX-4206S  
Fast Recovery Diode

Jan. 2010

★ 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	Refer to Derating (Page4)
4	Peak Surge Forward Current	$I_{FSM}$	A	100	10msec. Half sinewave, one shot
5	$I^2t$ Limiting Value	$I^2t$	A <sup>2</sup> s	50	1msec $\leq$ t $\leq$ 10msec
6	Junction Temperature	$T_j$	°C	-40~+150	
7	Storage Temperature	$T_{stg}$	°C	-40~+150	

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

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

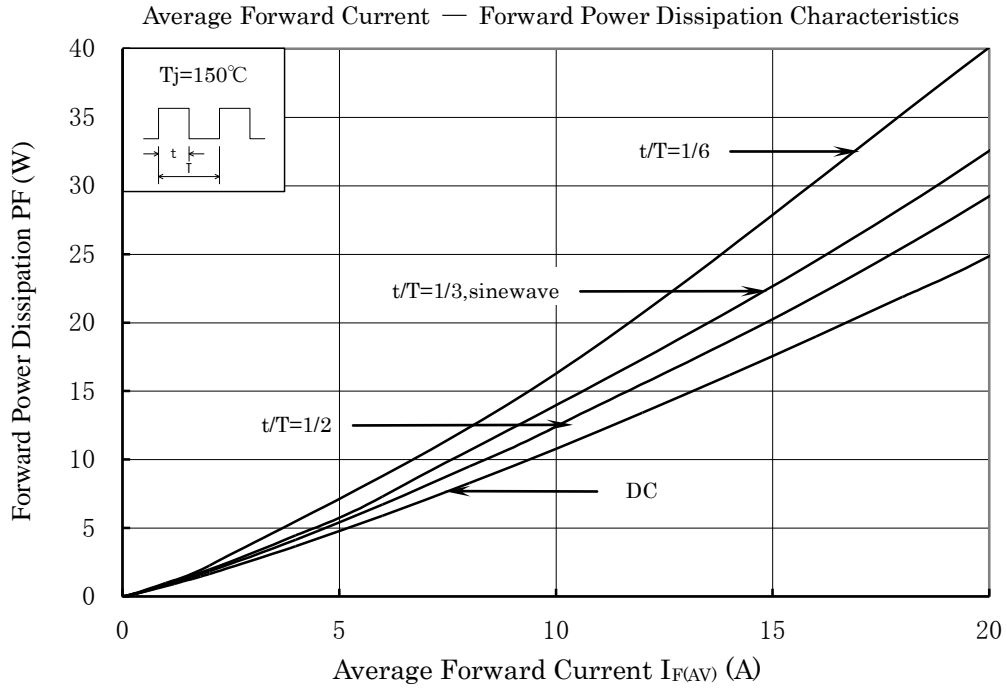
No.	Item	Symbol	Unit	Value	Conditions
1	Forward Voltage Drop	$V_F$	V	1.5 max.	$I_F=10A$
2	Reverse Leakage Current	$I_R$	$\mu A$	100 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	$H \cdot I_R$	mA	20 max.	$V_R=V_{RM}, T_j=150^\circ C$
4	Reverse Recovery Time	$t_{rr}$	ns	30 max.	$I_F=I_{RP}=500mA$ 90% Recovery point, $T_j=25^\circ C$
		$H \cdot t_{rr}$	ns	102 typ .	$I_F=I_{RP}=500mA$ 90% Recovery point, $T_j=150^\circ C$
5	Forward Voltage Drop	$R_{th(j-c)}$	°C/W	2.0 max.	Between Junction and case

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

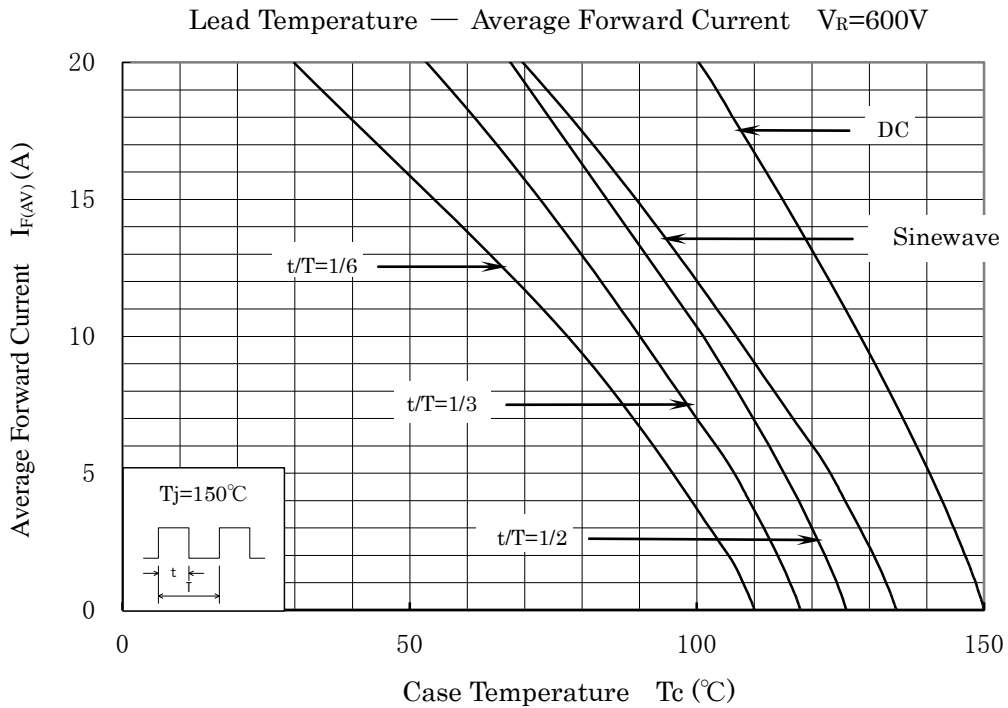
The contents in this document are subject to changes, for improvement and other purposes, without notice.

Make sure that this is the latest version of the document before use.

★ **Characteristics**



★ **Derating**

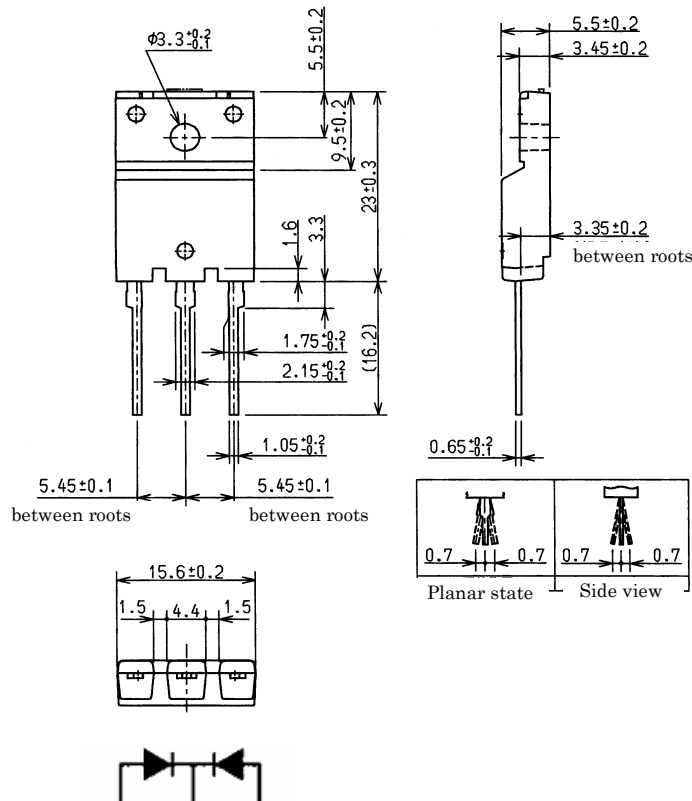


The contents in this document are subject to changes, for improvement and other purposes, without notice.  
 Make sure that this is the latest version of the document before use.

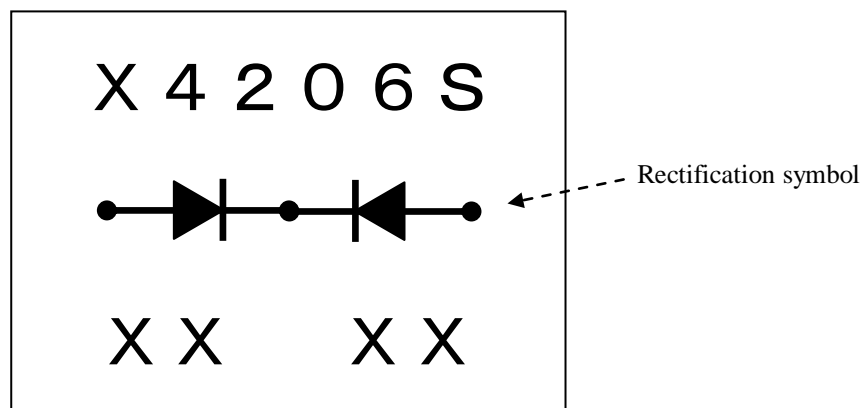
FMX-4206S  
Fast Recovery Diode

Jan. 2010

★ Package information (mm)



★ Marking





X4206S: Part number FMX-4206S is described "X4206S".

XXXX: Lot number (manufacture year, month, day) is described 4-digit numbers.







The contents in this document are subject to changes, for improvement and other purposes, without notice.  
Make sure that this is the latest version of the document before use.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View FMX-4206S](#) on WIN SOURCE
-  [Sanken](#) Information

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management