

FMEN-230A

Mar. 2008

High Voltage Schottky Barrier Rectifier

General Description

FMEN-230A is a High Voltage (100V) Schottky Barrier Diode, and has achieved low leakage current and low VF by selecting the best barrier metal.

Applications

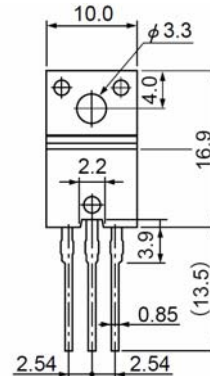
- DC-DC converters
- AC adapter
- High frequency rectification circuit

Features

- High Voltage 100V guarantee
- Steady operation is possible even at the high temperature by the low leakage current.
- Super-high speed & low noise switching.
- Low forward voltage drop.

Package

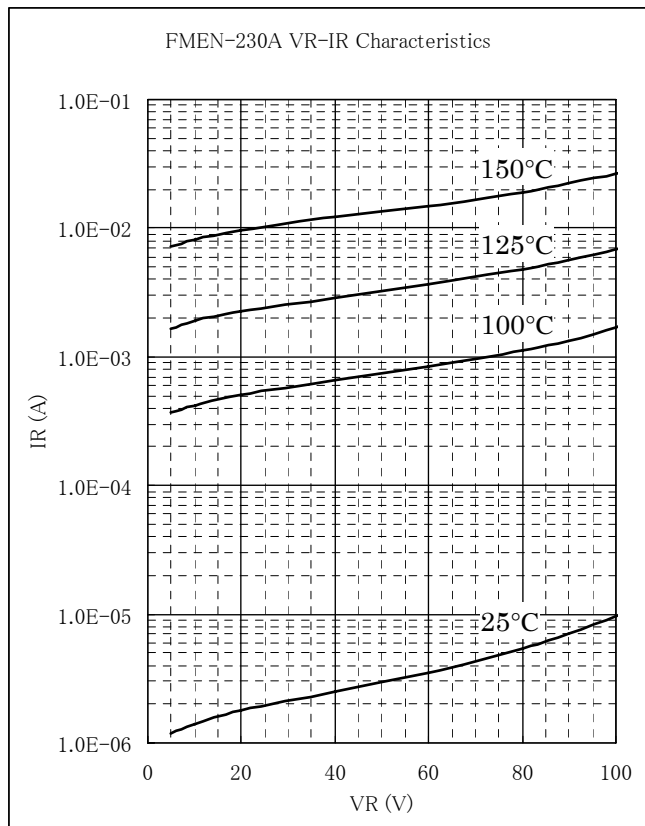
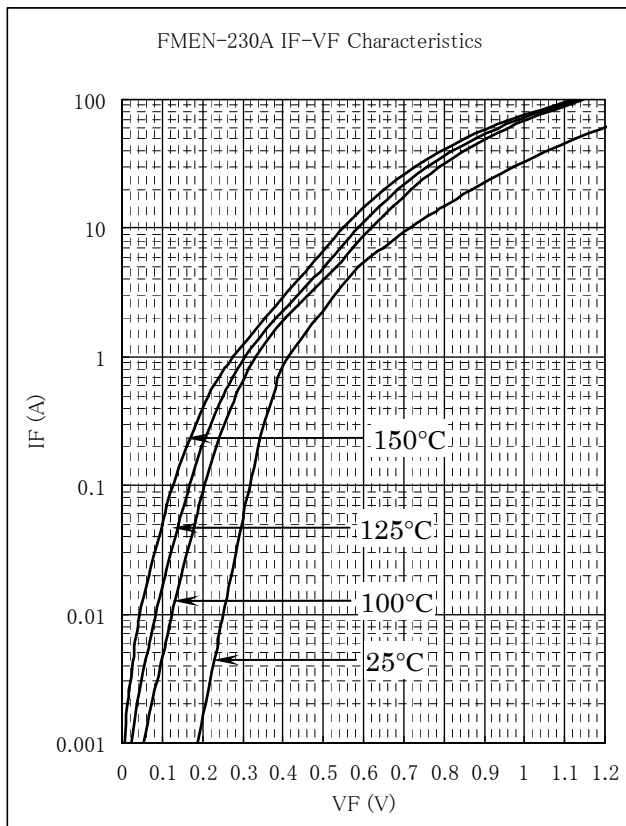
TO220F(3Pin)



Key Specifications

Symbol	Unit	Rating	Conditions
V_{RM}	V	100	
V_F	V	0.85	$I_F=15A$
$I_{F(AV)}$	A	30	

Typical Characteristics



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★ Absolute maximum ratings

No.	Parameter	Symbol	Unit	Rating	Conditions
1	Transient Peak Reverse Voltage	V_{RSM}	V	100	
2	Peak Reverse Voltage	V_{RM}	V	100	
3	Average Forward Current	$I_{F(AV)}$	A	30	
4	Peak Surge Forward Current	I_{FSM}	A	150	Half sinewave, one shot
5	I^2t Limiting Value	I^2t	A^2s	112.5	1msec<t<10msec
6	Junction Temperature	T_j	°C	-40 to +150	
7	Storage Temperature	T_{stg}	°C	-40 to +150	

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

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

No.	Parameter	Symbol	Unit	Rating	Conditions
1	Forward Voltage Drop	V_F	V	0.85 max.	$I_F=15A$
2	Reverse Leakage Current	I_R	uA	300 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	$H \cdot I_R$	mA	150 max.	$V_R=V_{RM}, T_j=150^\circ C$
4	Thermal Resistance	$R_{th(j-c)}$	°C/W	4.0 max.	Between Junction and case

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

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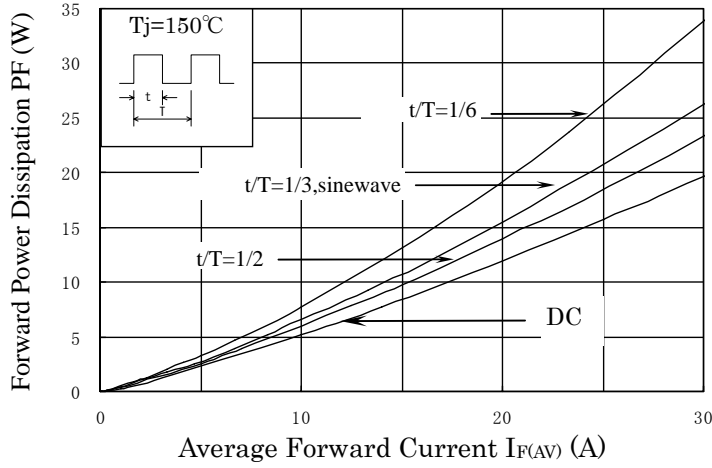
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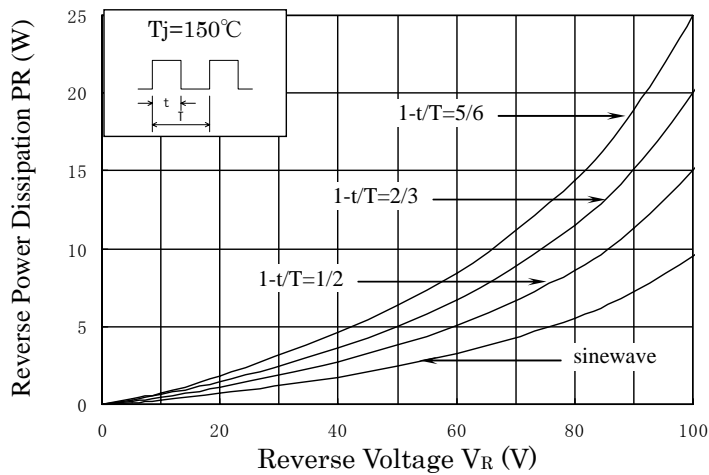
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★ Characteristics

Forward Power Dissipation

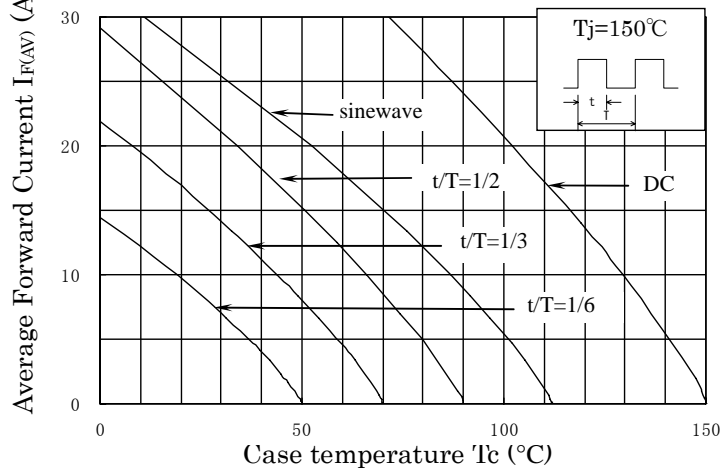


Reverse Power Dissipation



Current Derating

$V_R=150\text{V}$

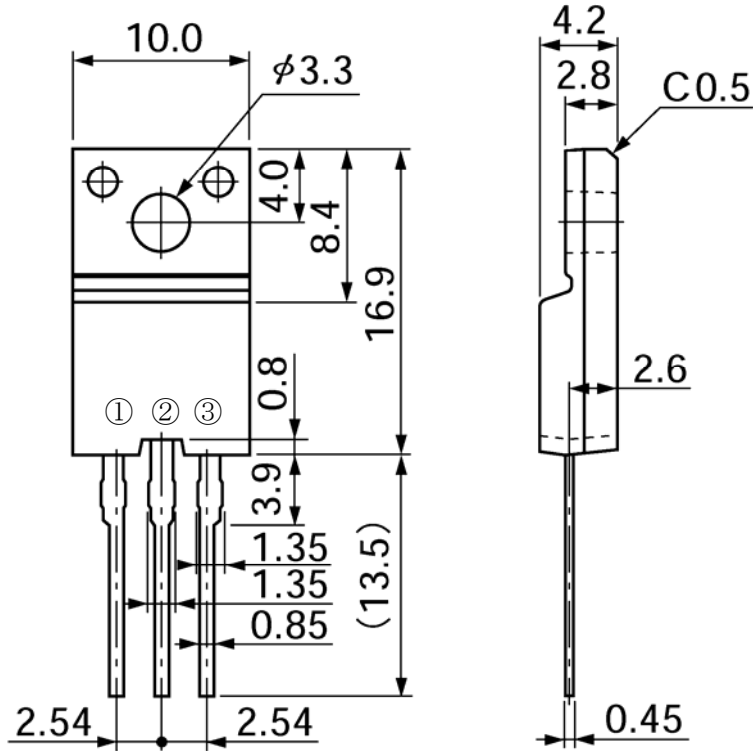


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★ Outline drawings, mm



tolerance: ± 0.2

★ Connection Diagram

