

FMEN-210A

March, 2006

■General Description

FMEN-210A 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 guaranteed.
- Steady operation is possible even at the high temperature by the low leakage current.
- Super-high speed & low switching noise.
- Low forward voltage drop.

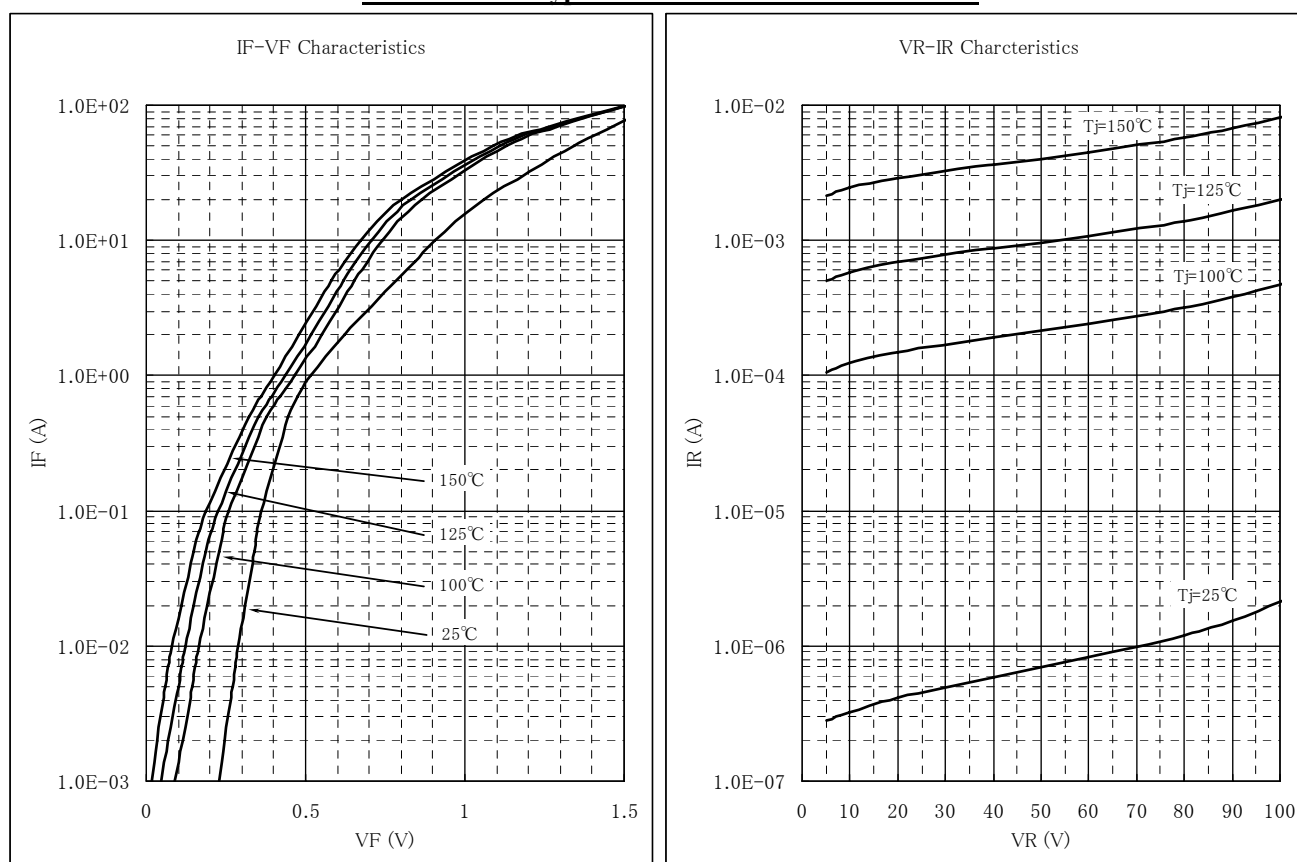
■Package---TO220F



■Key Specifications

Item	Unit	Rating	Conditions
V_{RM}	V	100	
V_F	V	0.85	$I_F=5.0A$
$I_{F(AV)}$	A	10	

Typical Characteristics



★ 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	10	
4	Peak Surge Forward Current	I_{FSM}	A	100	Half sinewave, one shot
5	I^2t Limiting Value	I^2t	A^2s	50	$1msec \leq t \leq 10msec$
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.

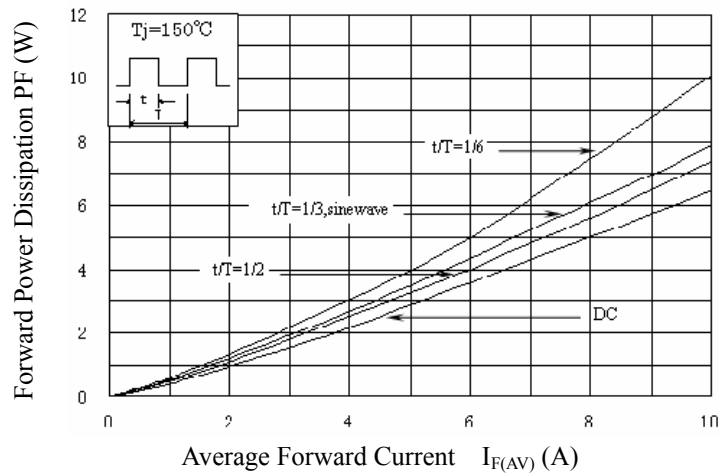
★ Electrical characteristics($T_a=25^\circ C$, unless otherwise specified)

No.	Parameter	Symbol	Unit	Value	Conditions
1	Forward Voltage Drop	V_F	V	0.85 max.	$I_F=5.0A$
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	50 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

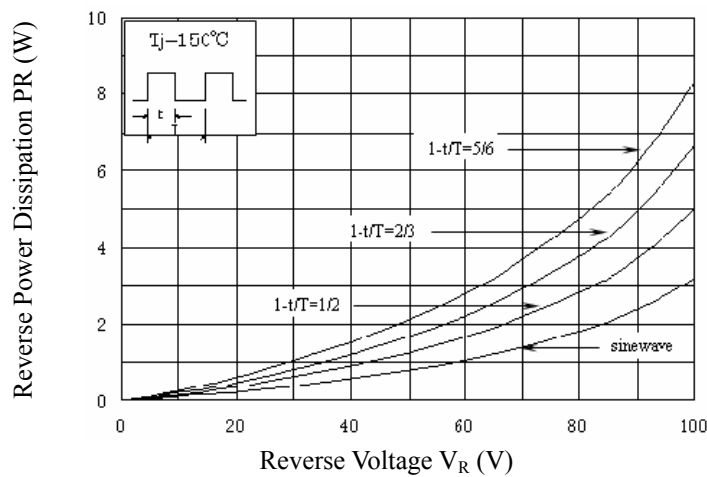
No.1,2,&3 show characteristics per one chip.

★ Characteristics

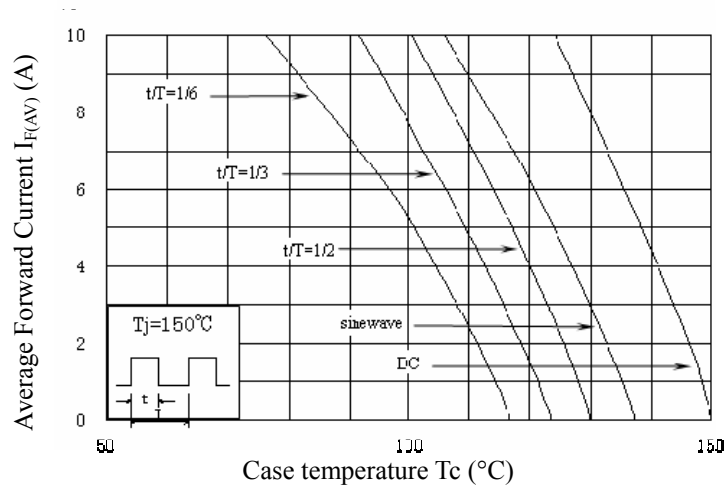
Forward Power Dissipation



Reverse Power Dissipation



Current Derating



Technical drawing of a mechanical part, showing front and side views with dimensions.

Front View Dimensions:

- Overall width: 10.0
- Top hole diameter: $\phi 3.3$
- Distance from top edge to center of top hole: 4.0
- Distance from top edge to center of bottom hole: 8.4
- Overall height: 16.9
- Distance from bottom edge to center of bottom hole: 0.8
- Bottom hole diameter: 2.54
- Bottom hole depth: 13.5
- Bottom hole diameter at base: 0.45
- Bottom hole diameter at top of hole: 1.35
- Bottom hole diameter at middle of hole: 0.85
- Bottom hole diameter at bottom of hole: 2.54

Side View Dimensions:

- Overall height: 4.2
- Distance from top edge to center of hole: 2.8
- Top hole diameter: C0.5
- Distance from bottom edge to center of hole: 2.6

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