

MPEN-230AF

December, 2005

■General Description

High Voltage Schottky Barrier Diode (100V).
The low leakage current and low VF have been achieved by using the optimum barrier metal.

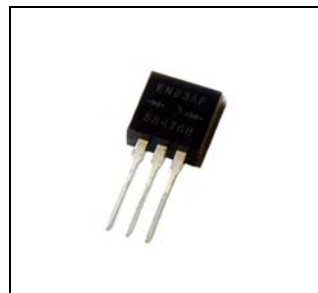
■Applications

- DC-DC converters
- AC adapter
- High frequency rectification circuit, etc.

■Features

- High Voltage 100V guarantee
- Steady operation is possible even at high temperature with a low leakage current.
- Ultrafast & low noise switching.
- Low forward voltage drop.

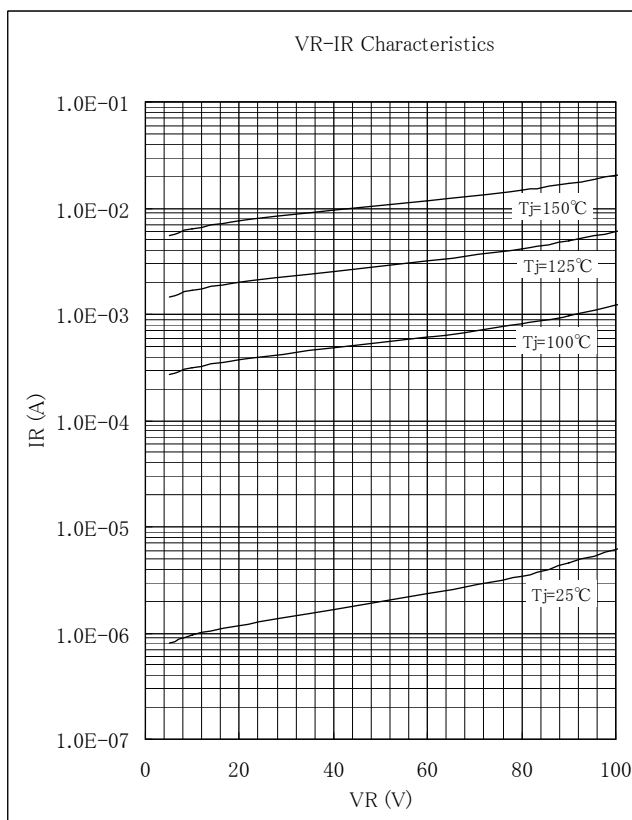
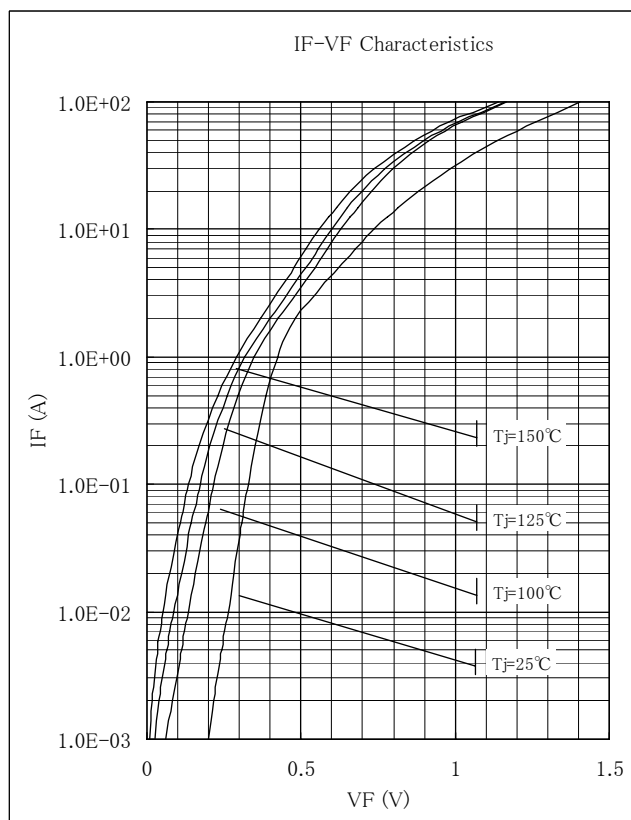
■Package---TO-262



■Key Specifications

Item	Unit	Rating	Conditions
V_{RM}	V	100	
V_F	V	0.90	$I_F=15A$
$I_{F(AV)}$	A	30	

Typical Characteristics



★ Absolute maximum ratings

No.	Item	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	$1\text{msec} \leq t \leq 10\text{msec}$
6	Junction Temperature	T_j	$^{\circ}\text{C}$	-40 to +150	
7	Storage Temperature	T_{stg}	$^{\circ}\text{C}$	-40 to +150	

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

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

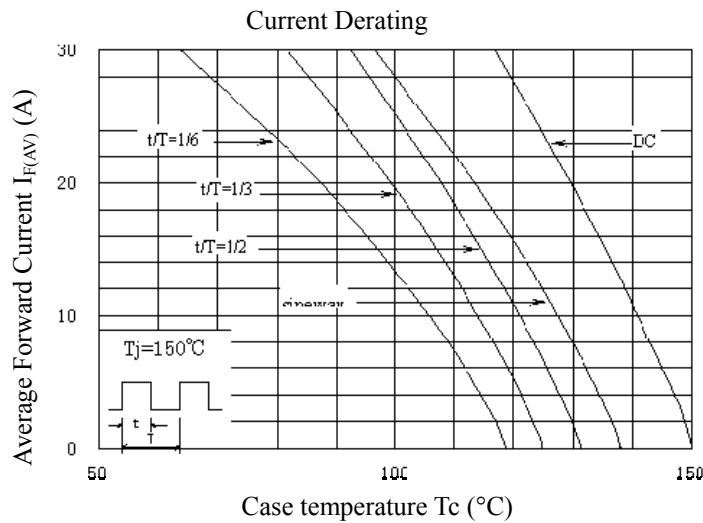
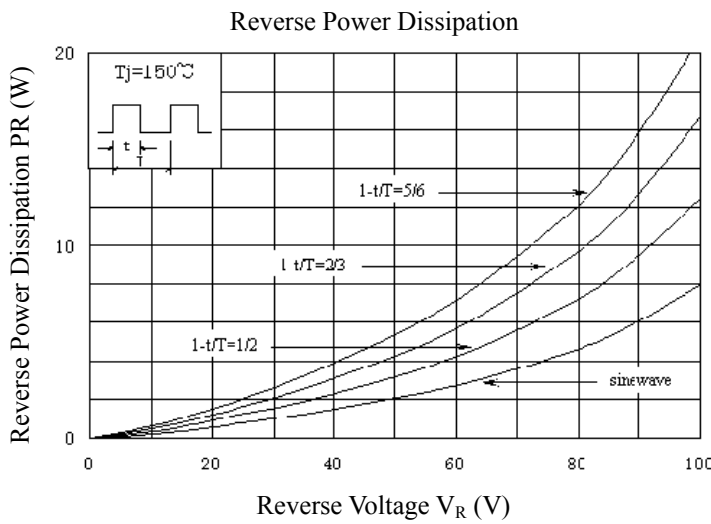
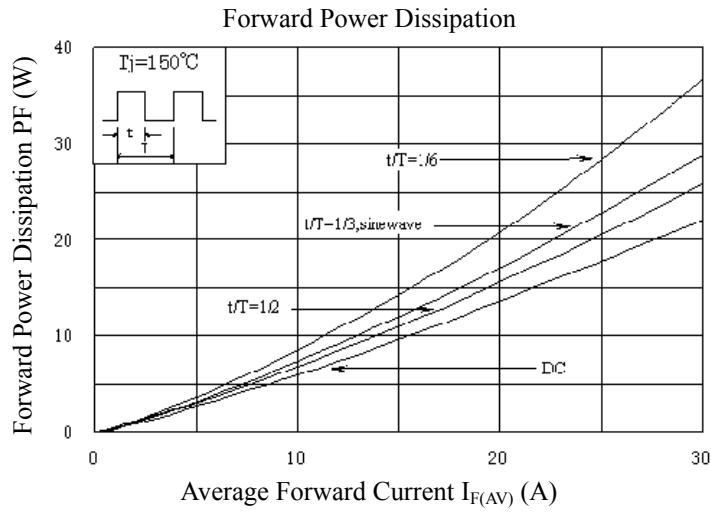
No.	Item	Symbol	Unit	Value	Conditions
1	Forward Voltage Drop	V_F	V	0.90 max.	$I_F=15\text{A}$
2	Reverse Leakage Current	I_R	μA	250 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	$H \cdot I_R$	mA	125 max.	$V_R=V_{RM}, T_j=150^{\circ}\text{C}$
4	Thermal Resistance	$R_{th(j-c)}$	$^{\circ}\text{C}/\text{W}$	1.5 max.	Between Junction and case

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

MPEN-230AF

December, 2005

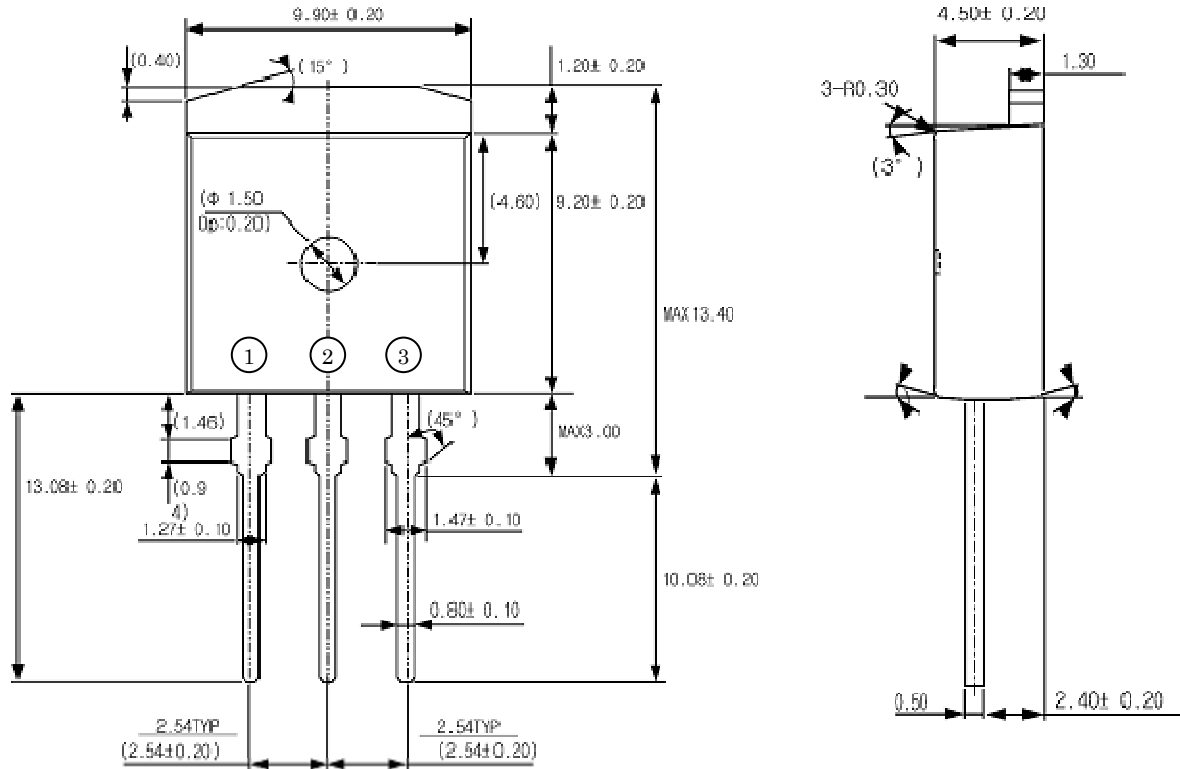
★ Characteristics



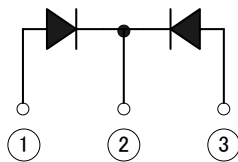
MPEN-230AF

December, 2005

★ Outline drawings, mm



★ Connection Diagram



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