

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.

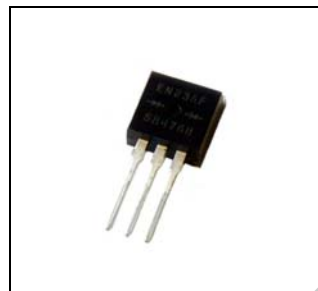
■Applications

- 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.

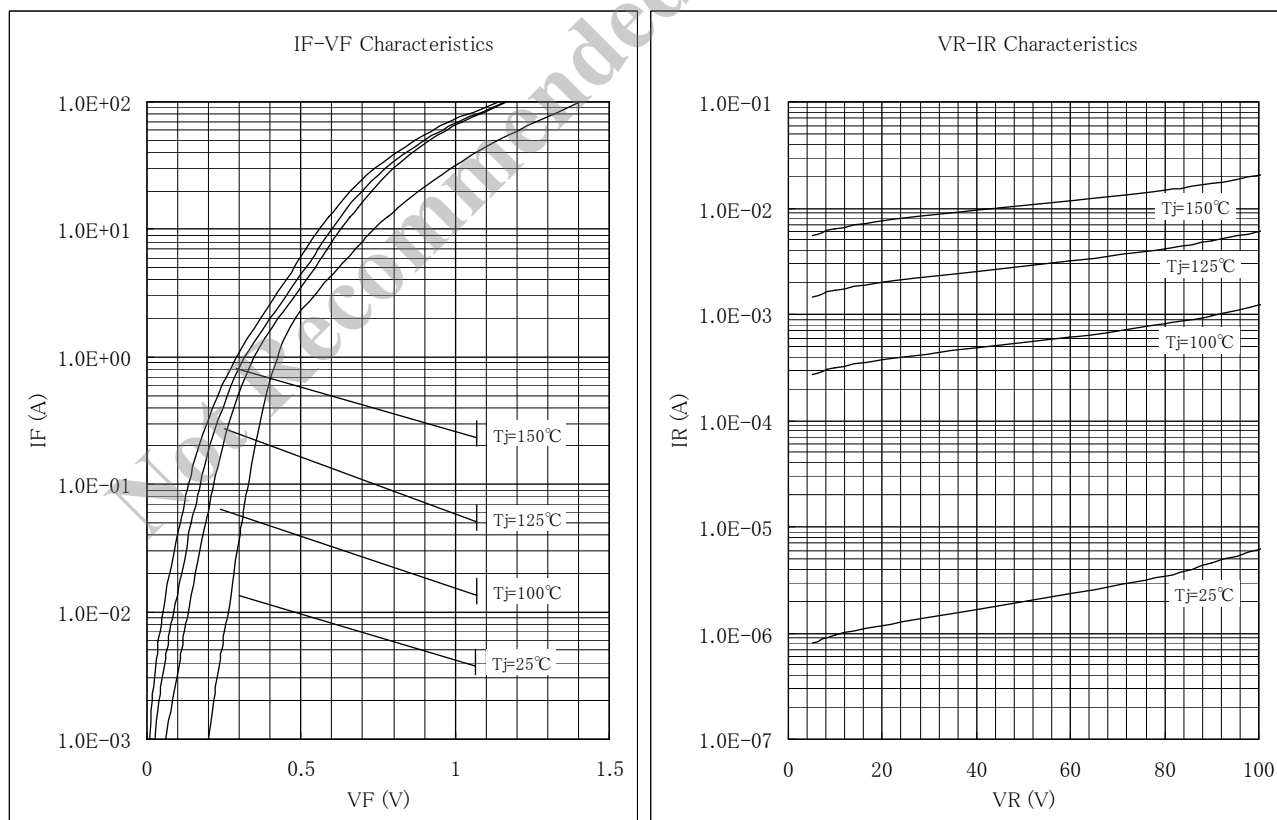
■Package---TO-262



■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



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★ 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	$1msec \leq t \leq 10msec$
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 (Ta=25°C, unless otherwise specified)

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

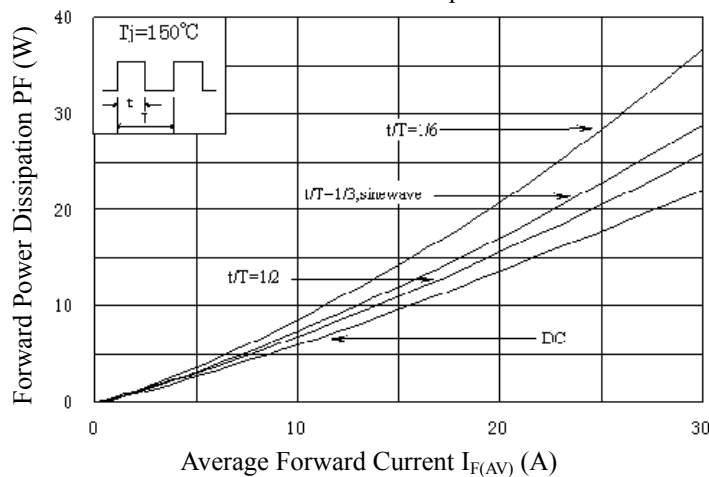
No.1, 2, & 3 show characteristics per one chip.

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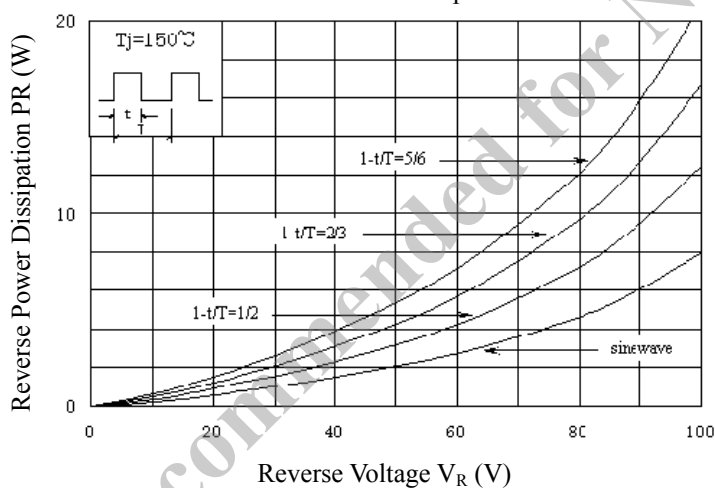
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★ Characteristics

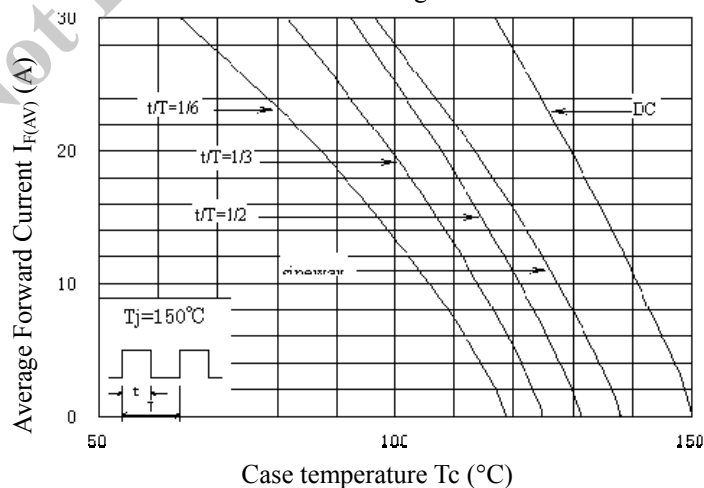
Forward Power Dissipation



Reverse Power Dissipation



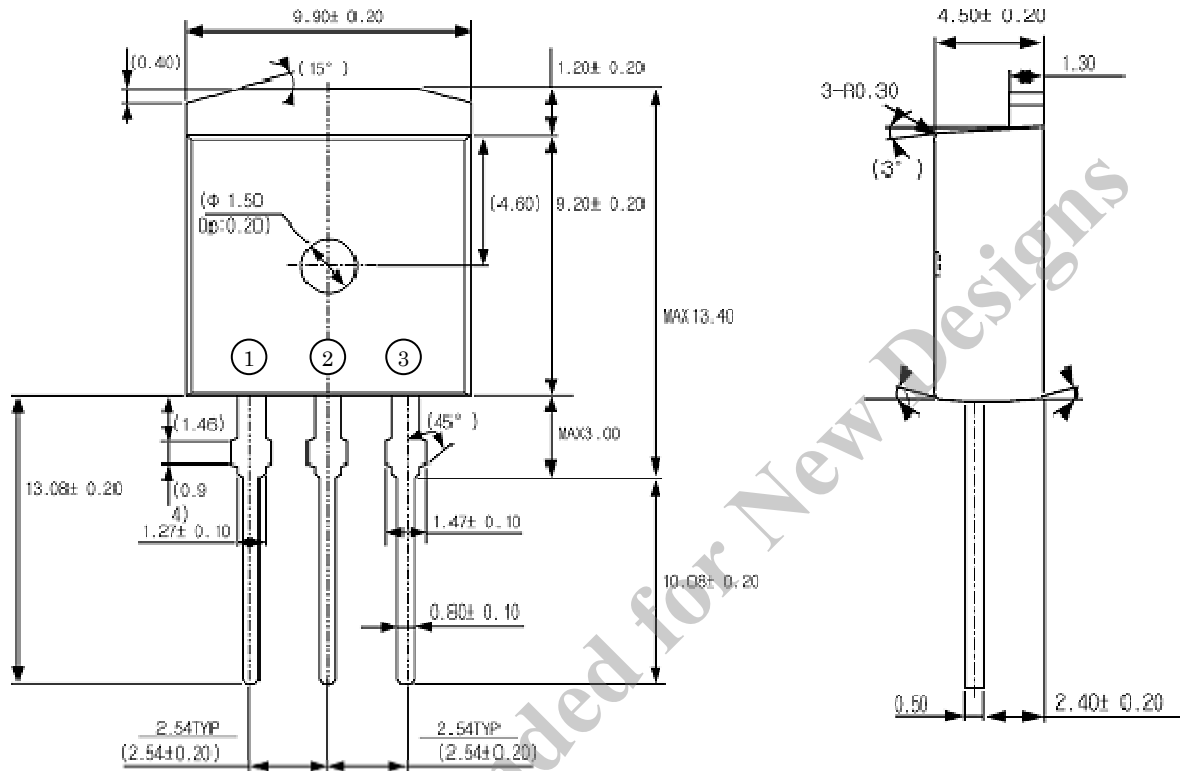
Current Derating



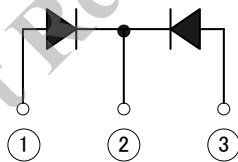
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★ Outline drawings, mm



★ Connection Diagram



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Not Recommended for New Designs

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