

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.

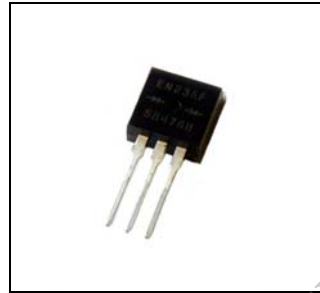
■Applications

- 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.

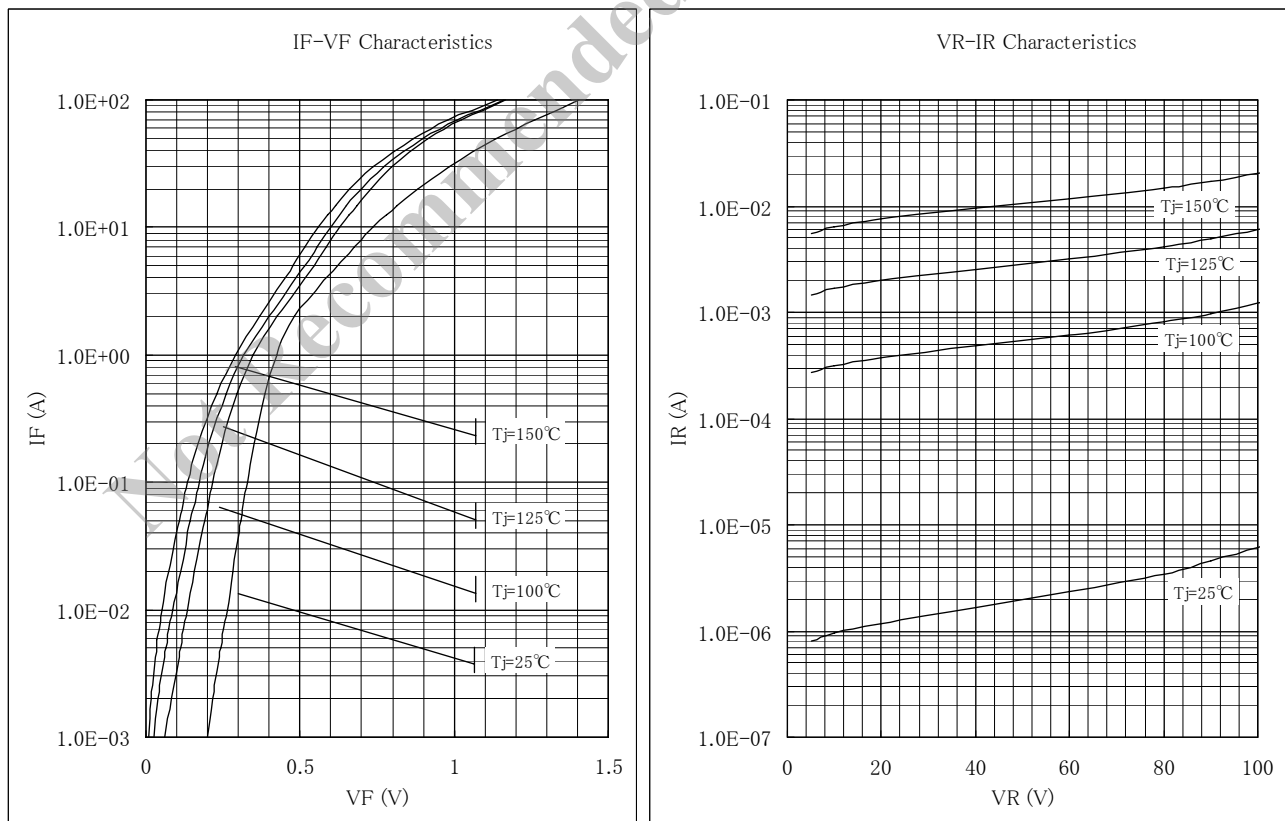
■Package---TO-262



■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	$^{\circ}C$	-40 to +150	
7	Storage Temperature	T_{stg}	$^{\circ}C$	-40 to +150	

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

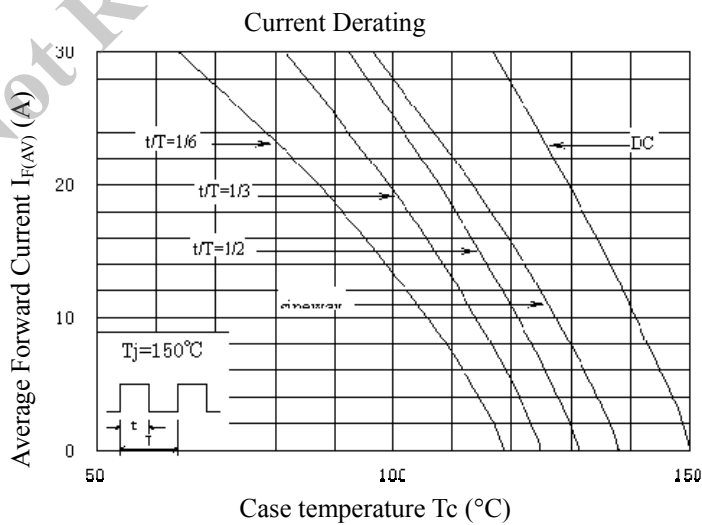
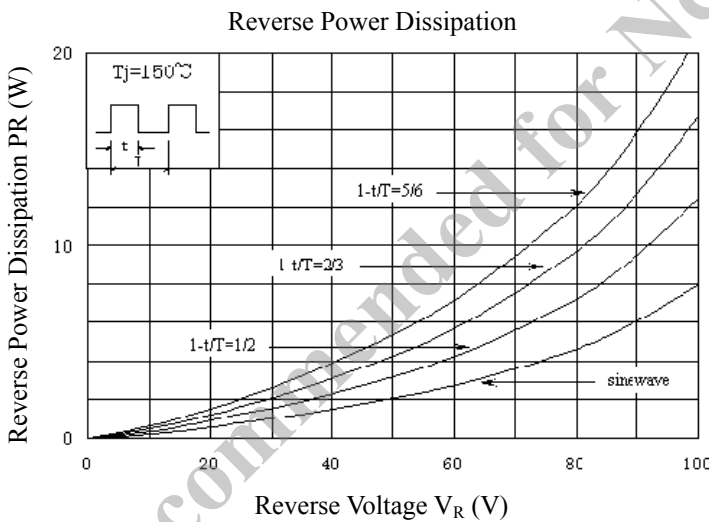
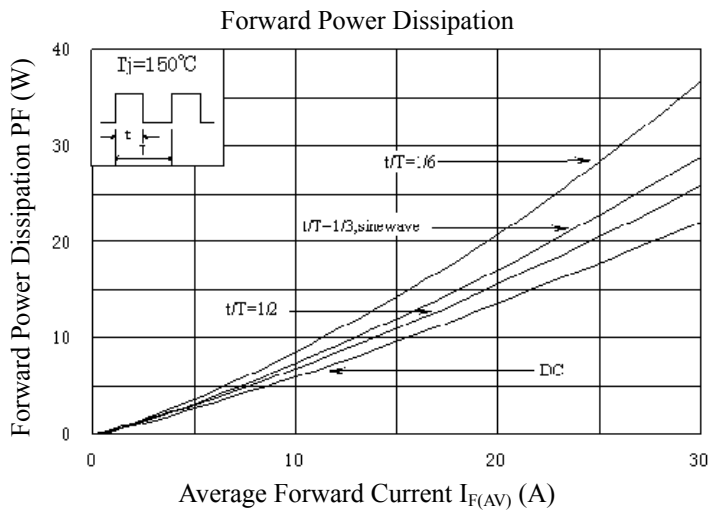
★ Electrical characteristics (Ta=25°C, unless otherwise specified)

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	μA	250 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	$H \cdot I_R$	mA	125 max.	$V_R=V_{RM}, T_j=150^{\circ}C$
4	Thermal Resistance	$R_{th(j-e)}$	$^{\circ}C/W$	1.5 max.	Between Junction and case

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

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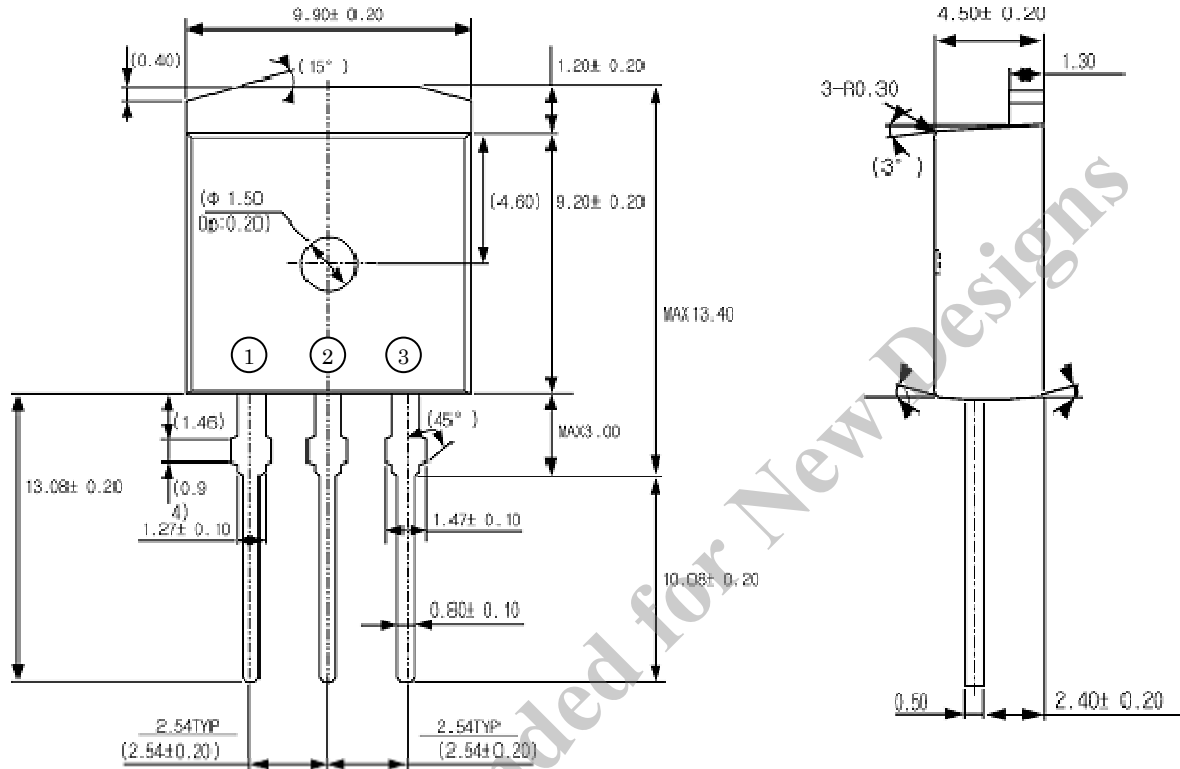
★ Characteristics



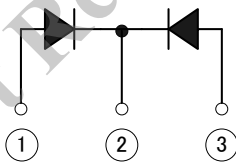
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★ Outline drawings, mm



★ Connection Diagram



<Worldwide Contacts>

Asia Pacific

China

Sanken Electric Hong Kong Co., Ltd.

Suite 1026 Ocean Centre, Canton Road, Tsimshatsui, Kowloon, Hong Kong

Tel: 852-2735-5262

Fax: 852-2735-5494

Sanken Electric (Shanghai) Co., Ltd.

Room3202, Maxdo Centre, Xingyi Road 8, Changning district, Shanghai, China

Tel: 86-21-5208-1177

Fax: 86-21-5208-1757

Taiwan Sanken Electric Co., Ltd.

Room 1801, 18th Floor, 88 Jung Shiau East Road, Sec. 2, Taipei 100, Taiwan R.O.C.

Tel: 886-2-2356-8161

Fax: 886-2-2356-8261

India

Saket Devices Pvt. Ltd.

Office No.13, First Floor, Bandal - Dhankude Plaza, Near PMT Depot, Paud Road, Kothrud, Pune - 411 038, India

Tel: 91-20-5621-2340

91-20-2528-5449

Fax: 91-20-2528-5459

Japan

Sanken Electric Co., Ltd. Overseas Sales Headquarters

Metropolitan Plaza Bldg. 1-11-1 Nishi-Ikebukuro, Toshima-ku, Tokyo 171-0021, Japan

Tel: 81-3-3986-6164

Fax: 81-3-3986-8637

Korea

Sanken Electric Korea Co., Ltd.

Mirae Asset Life Bldg. 6F, 168 Kongduk-dong, Mapo-ku, Seoul, 121-705, Korea

Tel: 82-2-714-3700

Fax: 82-2-3272-2145

Singapore

Sanken Electric Singapore Pte. Ltd.

150 Beach Road, #14-03 The Gateway West, Singapore 189720

Tel: 65-6291-4755

Fax: 65-6297-1744

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Europe

United Kingdom

Sanken Power Systems (UK) Limited

Pencoed Technology Park, Pencoed, Bridgend CF35 5HY. UK

Tel: 44-1656-869-100

Fax: 44-1656-869-162

North America

United States

Allegro MicroSystems, Inc.

115 Northeast Cutoff, Worcester, Massachusetts 01606, U.S.A.

Tel: 1-508-853-5000

Fax: 1-508-853-3353

Allegro MicroSystems, Inc. (Southern California)

14 Hughes Street, Suite B105, Irvine, CA 92618

Tel: 1-949-460-2003

Fax: 1-949-460-7837

Not Recommended for New Designs

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