
2SK2595

Silicon N-Channel MOS FET
UHF Power Amplifier

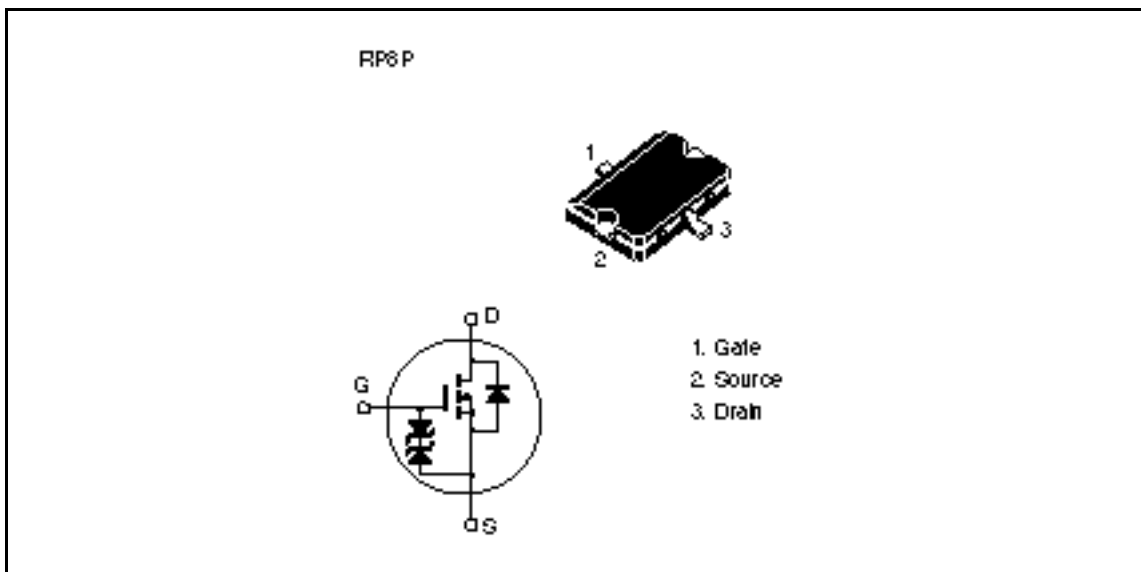
HITACHI

1st. Edition

Features

- High power output, High gain, High efficiency
PG = 7.8dB, Pout = 37.3dBm, D = 50 % min. (f = 836.5MHz)
- Compact package capable of surface mounting

Outline



This Device is sensitive to Electro Static Discharge.
An Adequate handling procedure is requested.

2SK2595

Absolute Maximum Ratings (Ta = 25°C)

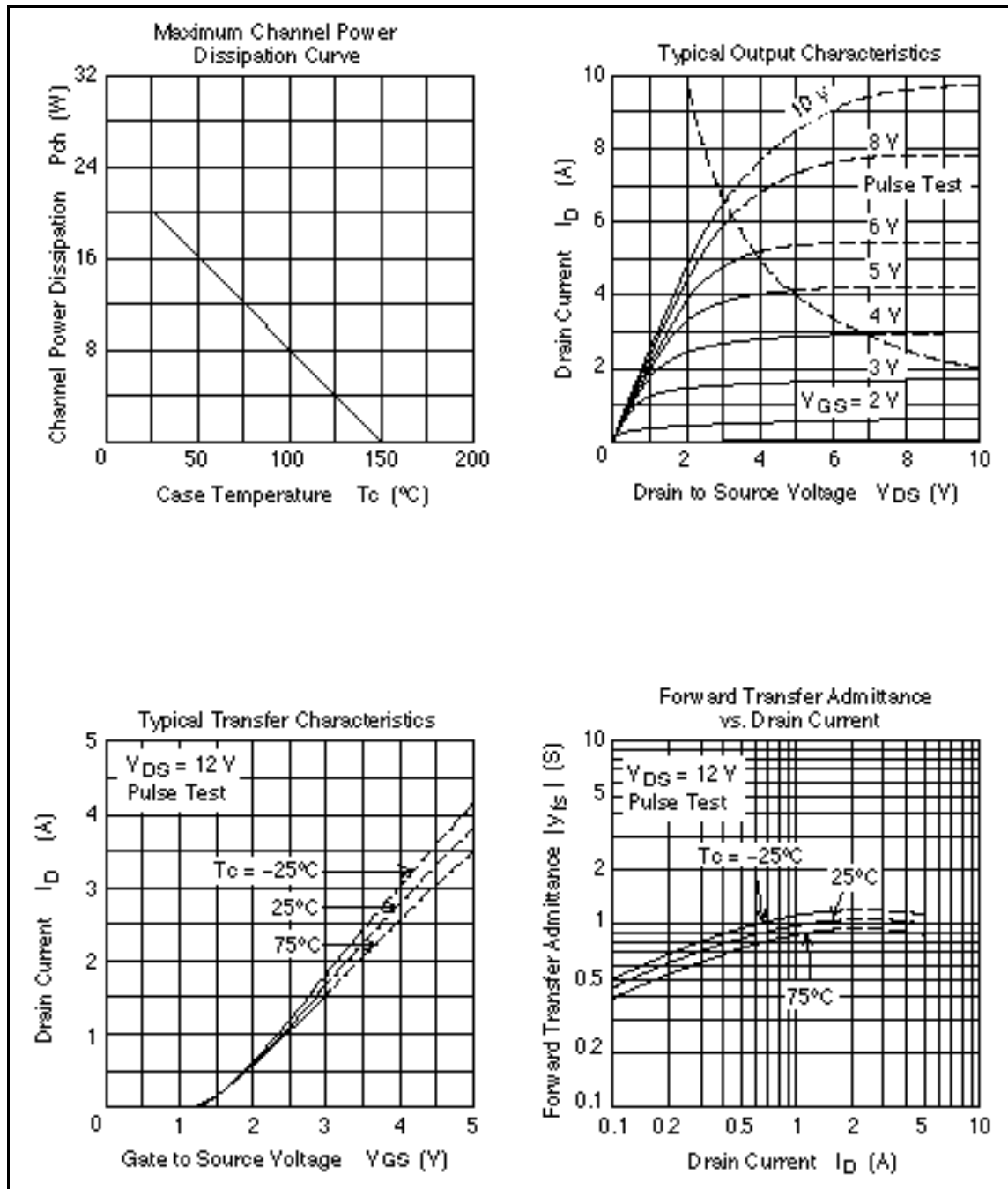
Item	Symbol	Ratings	Unit
Drain to source voltage	V _{DSS}	17	V
Gate to source voltage	V _{GSS}	±10	V
Drain current	I _D	1.1	A
Drain peak current	I _{D(pulse)} *1	5	A
Channel dissipation	Pch*2	20	W
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-45 to +150	°C

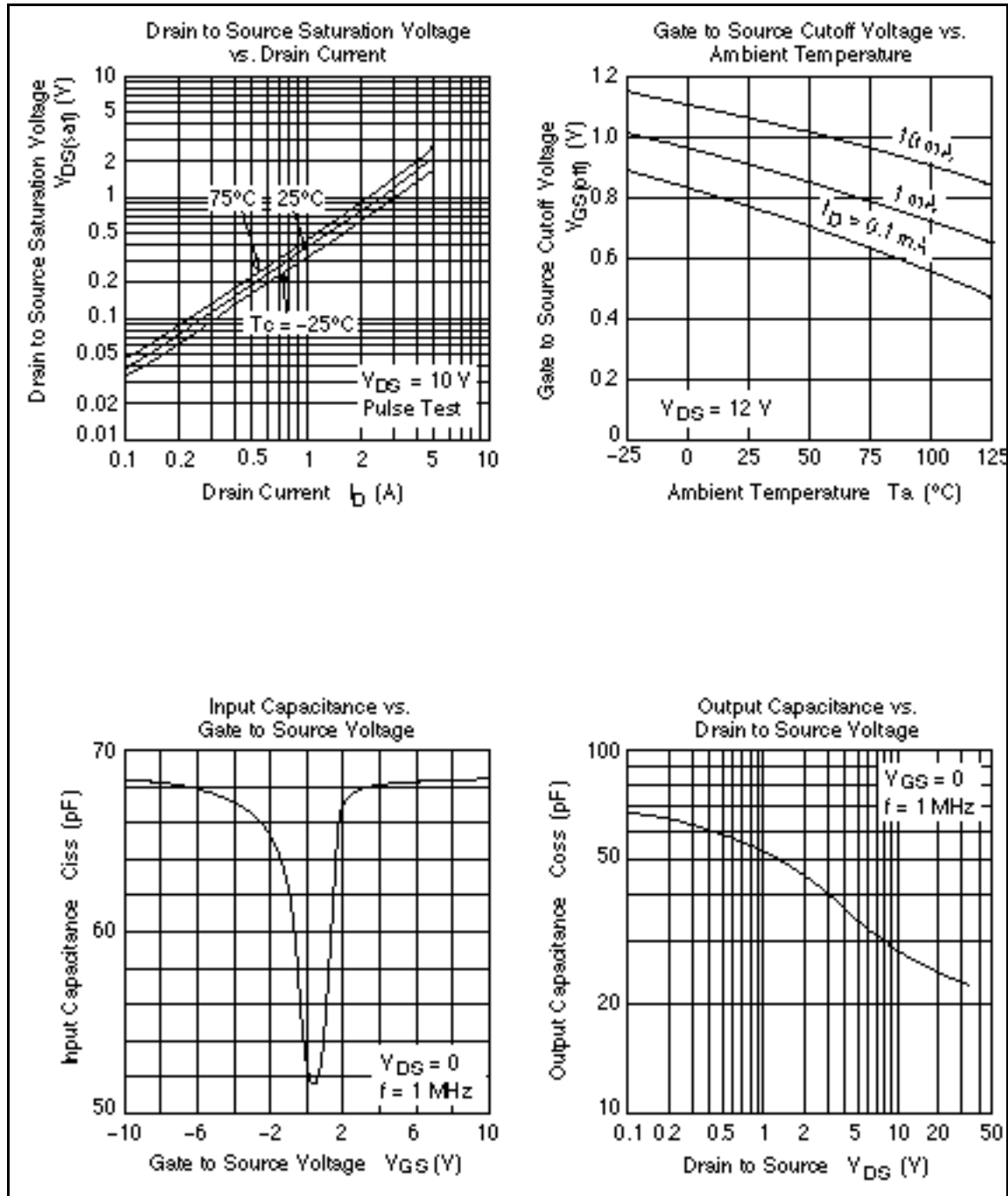
Notes: 1. PW 10μs, duty cycle 1 %
2. Value at Tc = 25°C

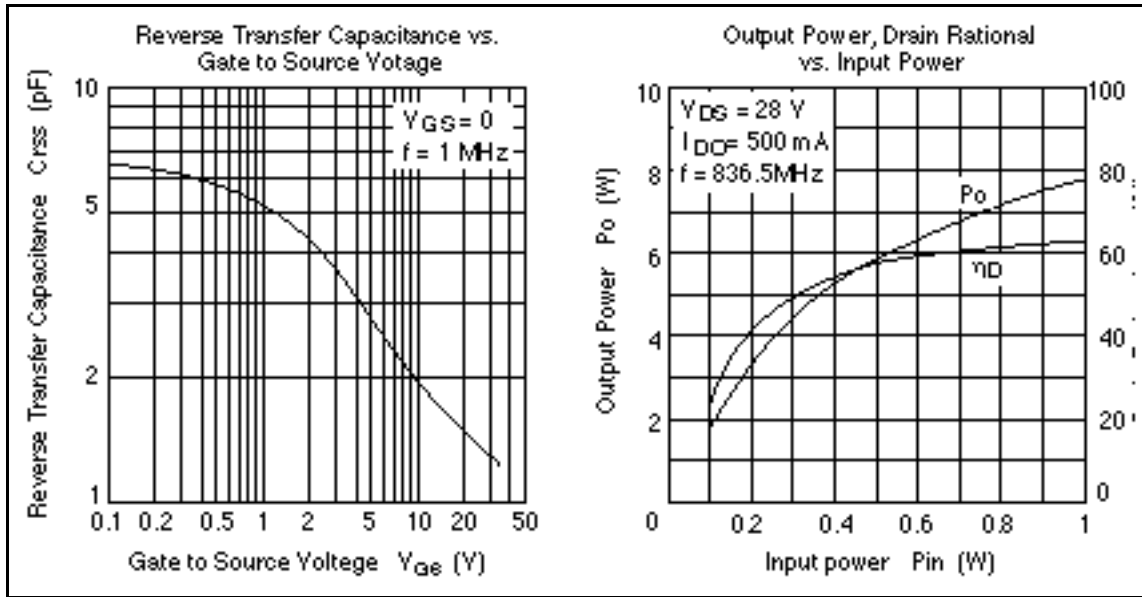
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min.	Typ	Max.	Unit	Test Conditions
Zero gate voltage drain current	I _{DSS}	—	—	10	μA	V _{DS} = 12 V, V _{GS} = 0
Gate to source leak current	I _{GSS}	—	—	±5.0	μA	V _{GS} = ±10V, V _{DS} = 0
Gate to source cutoff voltage	V _{GS(off)}	0.6	—	1.3	V	I _D = 6mA, V _{DS} = 12V
Input capacitance	Ciss	—	68	—	pF	V _{GS} = 5V, V _{DS} = 0 f = 1MHz
Output capacitance	Coss	—	27	—	pF	V _{DS} = 12V, V _{GS} = 0 f = 1MHz
Output Power	Pout	37.3	38.45	—	dBm	V _{DS} = 12V, f = 836.5MHz Pin = 29.5dBm
Drain Rational	D	50	60	—	%	V _{DS} = 12V Pout = 37.3dBm f = 836.5MHz Pin = 29.5dBm

Main Characteristics



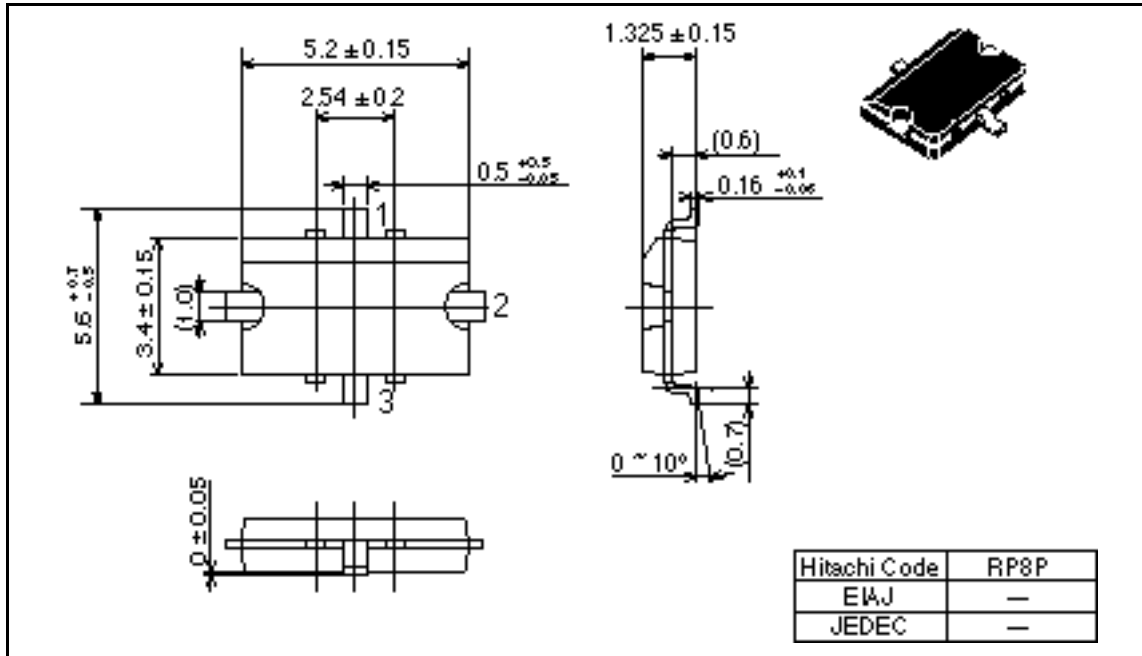




2SK2595

Package Dimensions

Unit: mm



HITACHI

When using this document, keep the following in mind:

1. This document may, wholly or partially, be subject to change without notice.
2. All rights are reserved: No one is permitted to reproduce or duplicate, in any form, the whole or part of this document without Hitachi's permission.
3. Hitachi will not be held responsible for any damage to the user that may result from accidents or any other reasons during operation of the user's unit according to this document.
4. Circuitry and other examples described herein are meant merely to indicate the characteristics and performance of Hitachi's semiconductor products. Hitachi assumes no responsibility for any intellectual property claims or other problems that may result from applications based on the examples described herein.
5. No license is granted by implication or otherwise under any patents or other rights of any third party or Hitachi, Ltd.
6. **MEDICAL APPLICATIONS:** Hitachi's products are not authorized for use in **MEDICAL APPLICATIONS** without the written consent of the appropriate officer of Hitachi's sales company. Such use includes, but is not limited to, use in life support systems. Buyers of Hitachi's products are requested to notify the relevant Hitachi sales offices when planning to use the products in **MEDICAL APPLICATIONS**.

HITACHI

Hitachi, Ltd.

Semiconductor & IC Div.

Nippon Bldg., 2-5-2, Ohite-machi, Chiyoda-ku, Tokyo 100, Japan

Tel: Tokyo (03) 3270-2111

Fax: (03) 3270-5109

For further information write to:

Hitachi America, Ltd.
Semiconductor & IC Div.
2000 Sierra Point Parkway
Brisbane, CA 94005-4835
U.S.A.
Tel: 415-589-8000
Fax: 415-589-4207

Hitachi Europe GmbH
Electronic Components Group
Continental Europe
Dornacher Straße 3
D-85622 Feldkirchen
München
Tel: 089-9 94 80-0
Fax: 089-9 29 30 00

Hitachi Europe Ltd.
Electronic Components Div.
Northern Europe Headquarters
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA
United Kingdom
Tel: 0628-585000
Fax: 0628-778322

Hitachi Asia Pte. Ltd.
45 Collyer Quay #20-00
Hitachi Tower
Singapore 0104
Tel: 535-2100
Fax: 535-1533

Hitachi Asia (Hong Kong) Ltd.
Unit 705, North Tower,
World Finance Centre
Harbour City, Canton Road
Tsim Sha Tsui, Kowloon
Hong Kong
Tel: 27359218
Fax: 27308074