

2SK2595

Silicon N-Channel MOS FET
UHF Power Amplifier

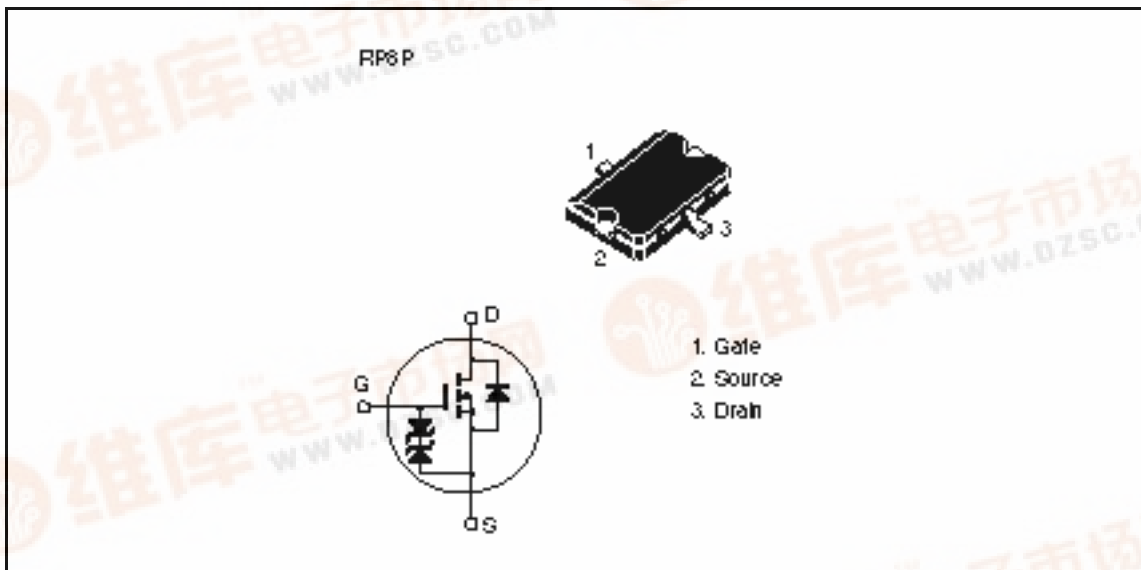
HITACHI

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_{DS}	17	V
Gate to source voltage	V_{GS}	±10	V
Drain current	I_D	1.1	A
Drain peak current	$I_{D(pulse)}^{*1}$	5	A
Channel dissipation	P_{ch}^{*2}	20	W
Channel temperature	Tch	150	°C
Storage temperature	Tstg	−45 to +150	°C

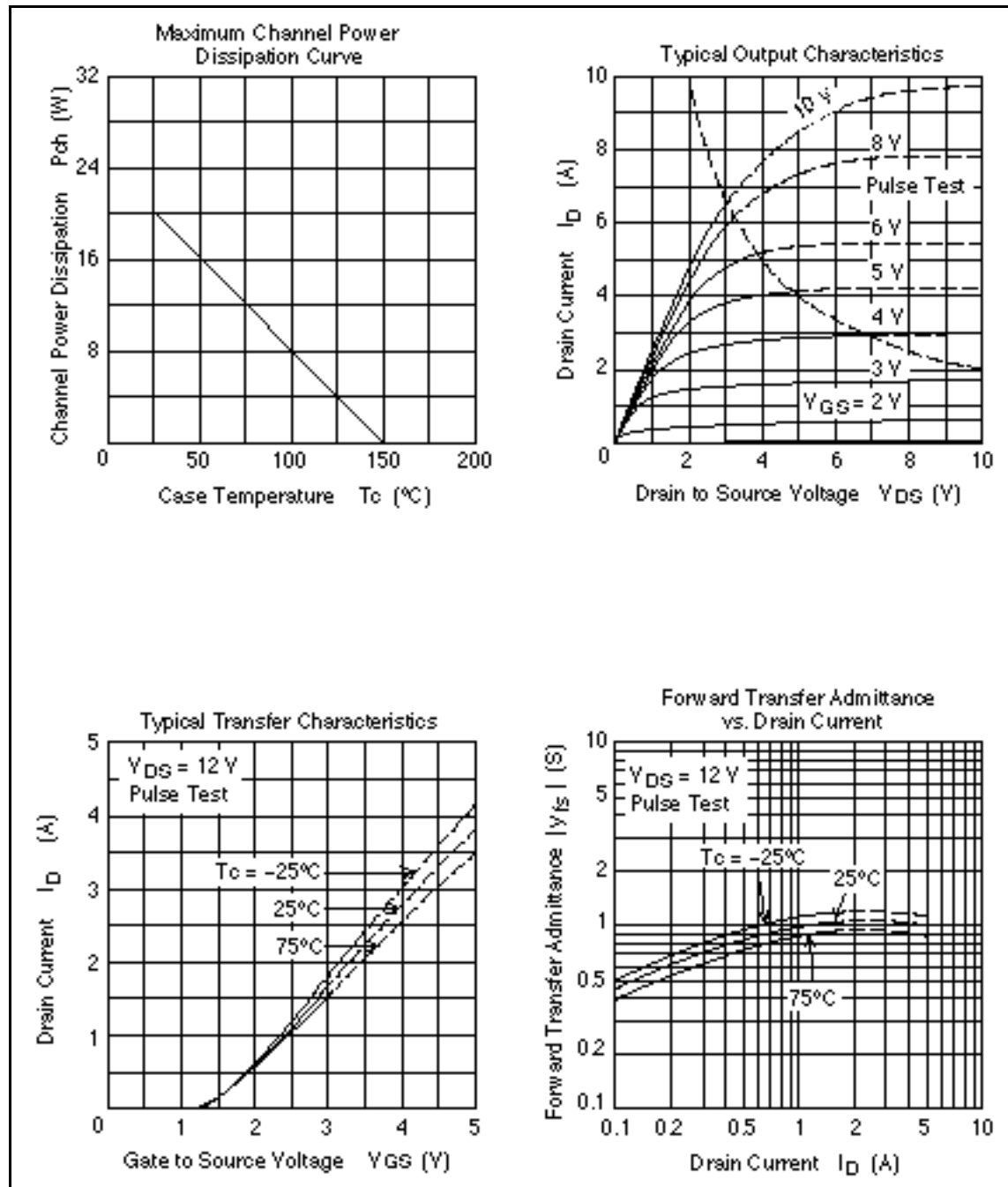
Notes: 1. PW 10μs, duty cycle 1 %

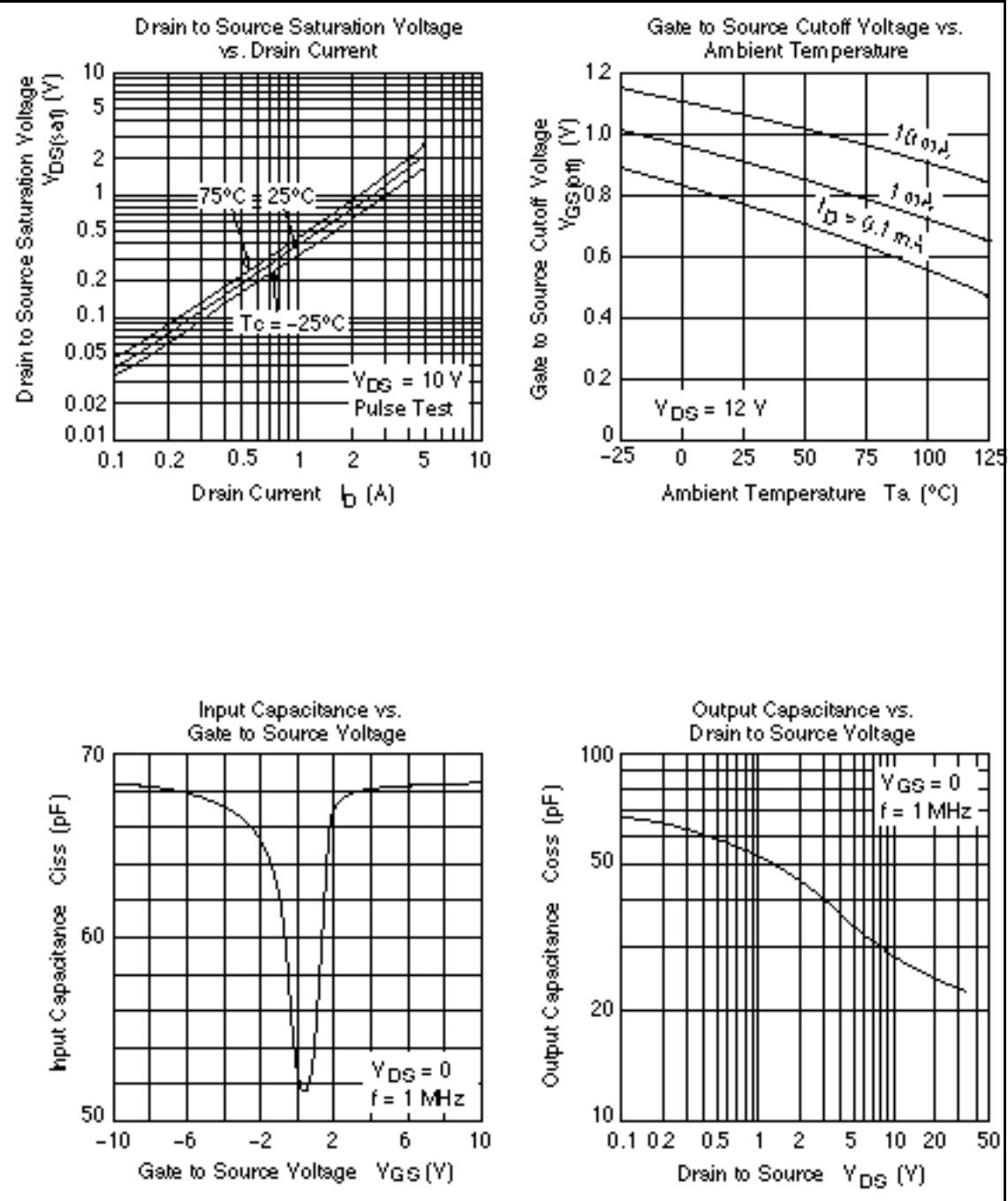
2. Value at Tc = 25°C

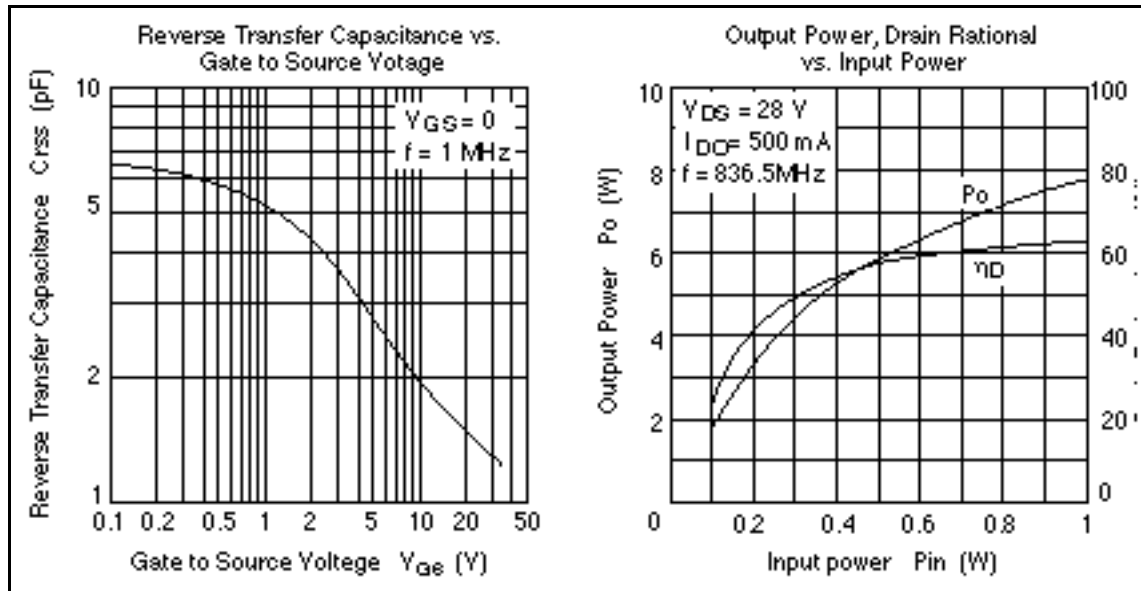
Electrical Characteristics (Ta = 25°C)

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

Main Characteristics



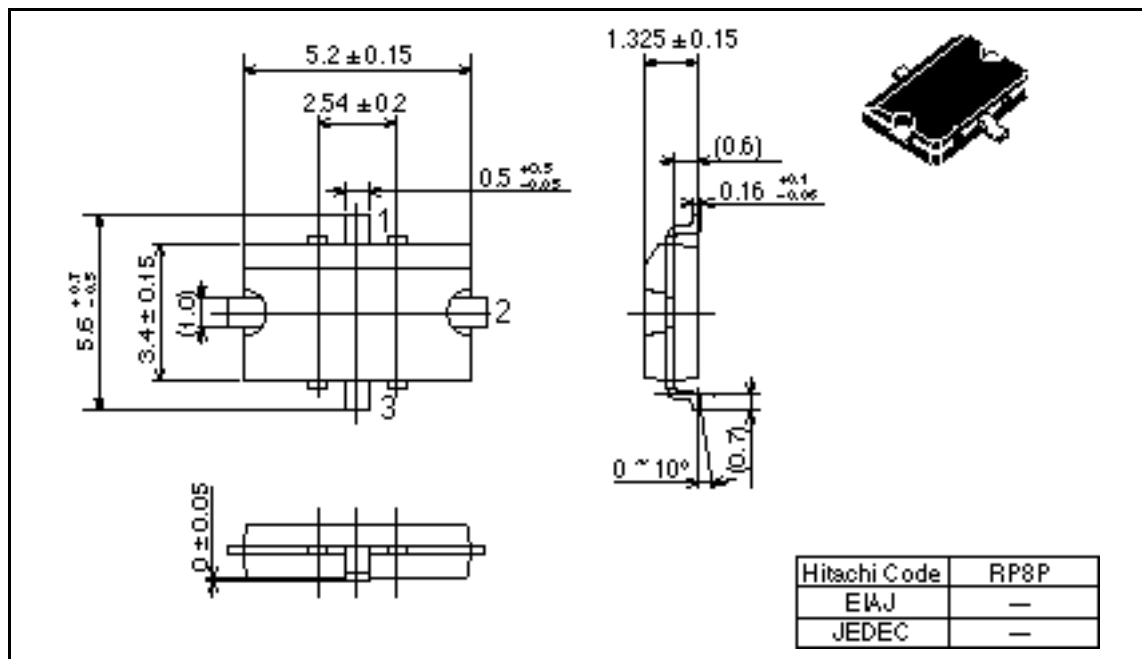




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Package Dimensions

Unit: mm



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HITACHI

Hitachi, Ltd.

Semiconductor & IC Div.

Nippon Bldg., 2-6-2, 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 415-589-8300

Fax 415-589-4207

Hitachi Europe GmbH

Electronic Components Group

Continental Europe

Danrecher 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

Whitbrook Park

Lower Cookham Road

M Maidenhead

Berkshire SL6 8YA

United Kingdom

Tel 0628-585000

Fax 0628-778322

Hitachi Asia Pte. Ltd.

45 Collyer Quay #20-00

Hitachi Tower

Singapore 0404

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