

2SK2595

Silicon N-Channel MOS FET
UHF Power Amplifier

HITACHI

ADE-208-1366 (Z)

1st. Edition

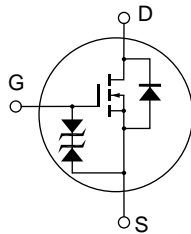
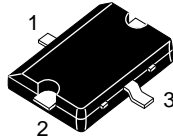
Mar. 2001

Features

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

Outline

RP8P



1. Gate
2. Source
3. Drain

This Device is sensitive to Electrostatic Discharge.

An Adequate handling procedure is requested.

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

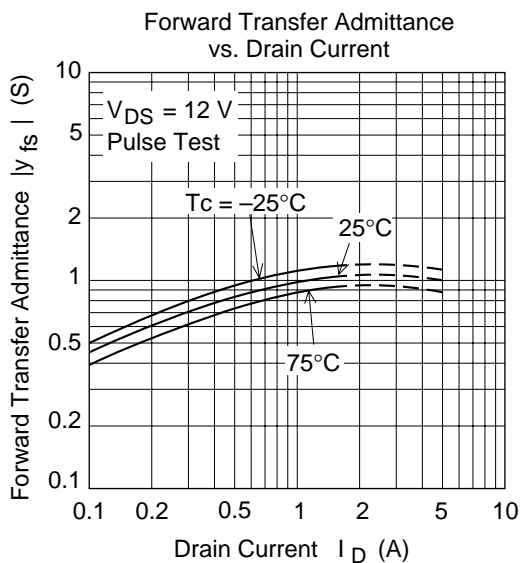
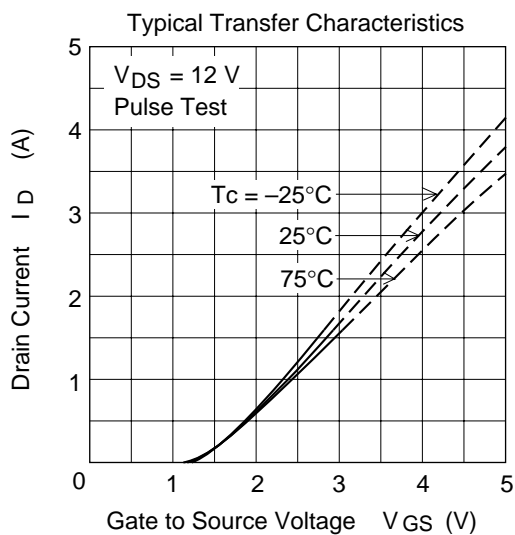
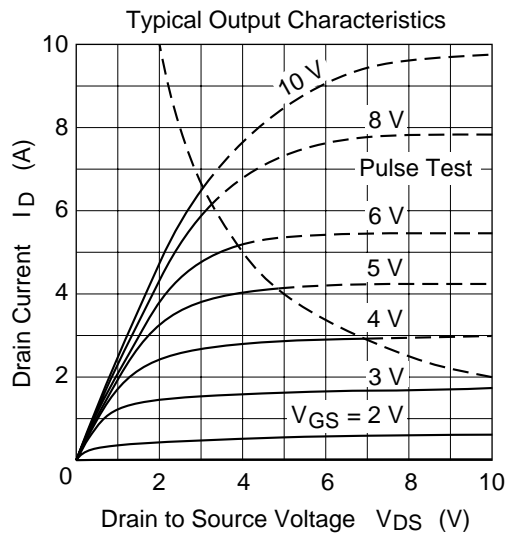
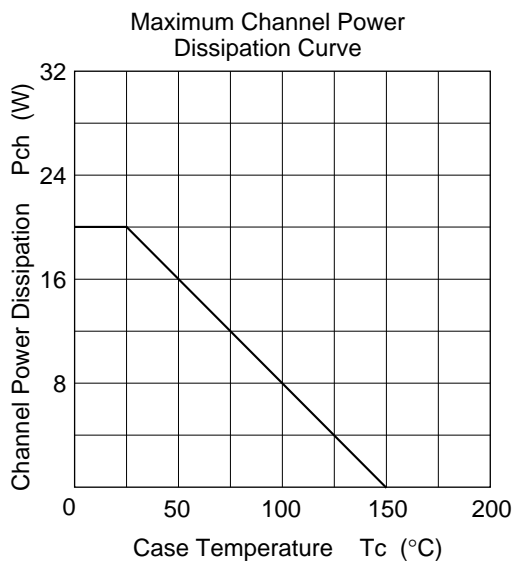
Notes: 1. PW ≤ 10μs, duty cycle ≤ 1 %

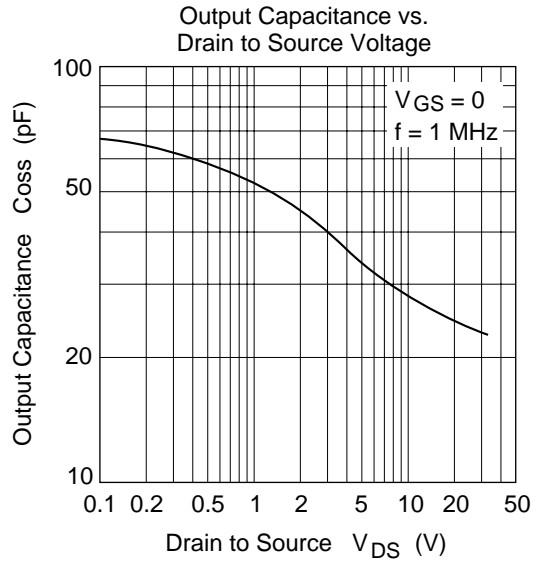
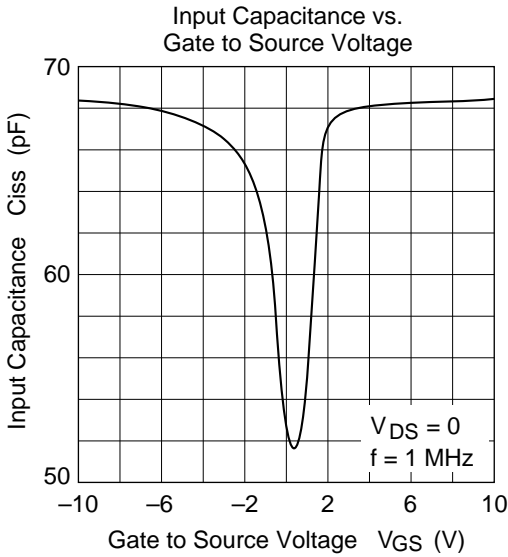
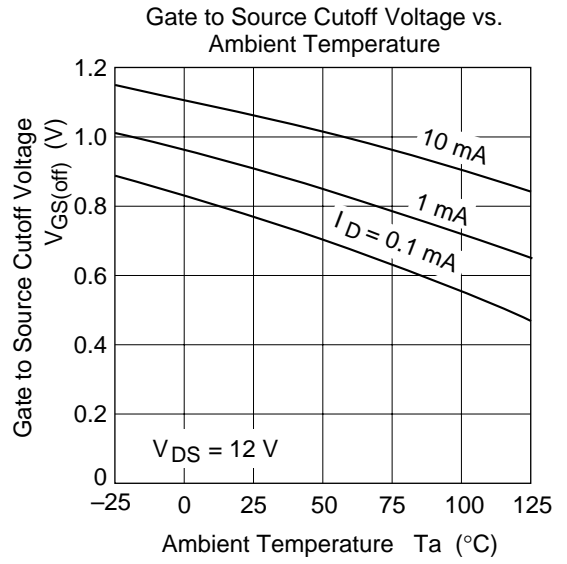
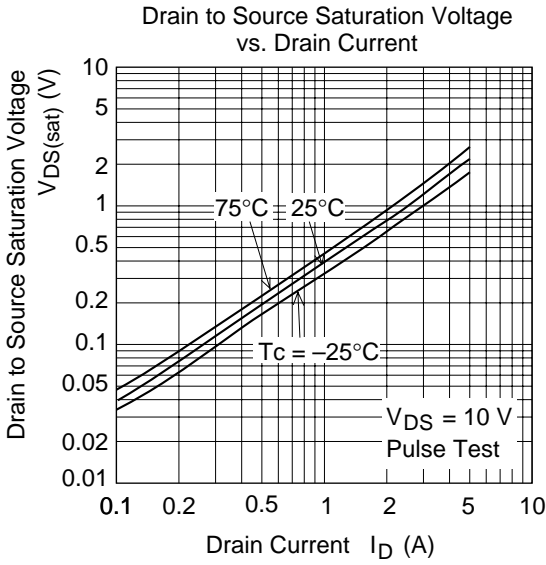
2. Value at Tc = 25°C

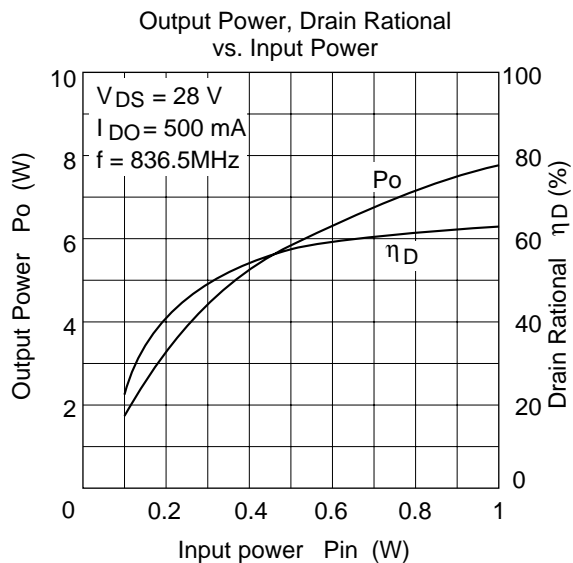
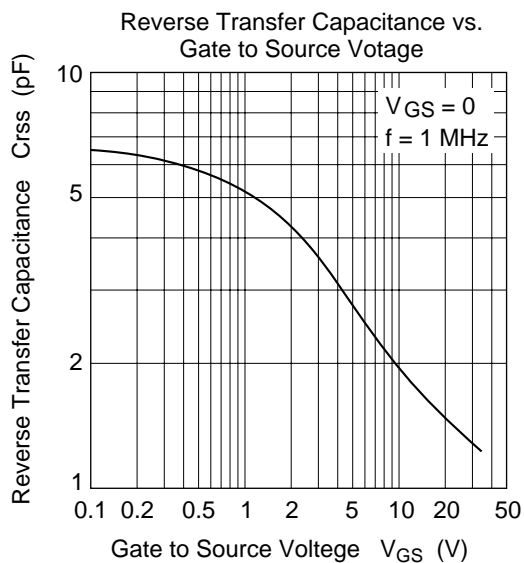
Electrical Characteristics (Ta = 25°C)

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	ηD	50	60	—	%	V _{DS} = 12V Pout = 37.3dBm f = 836.5MHz Pin = 29.5dBm

Main Characteristics



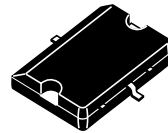
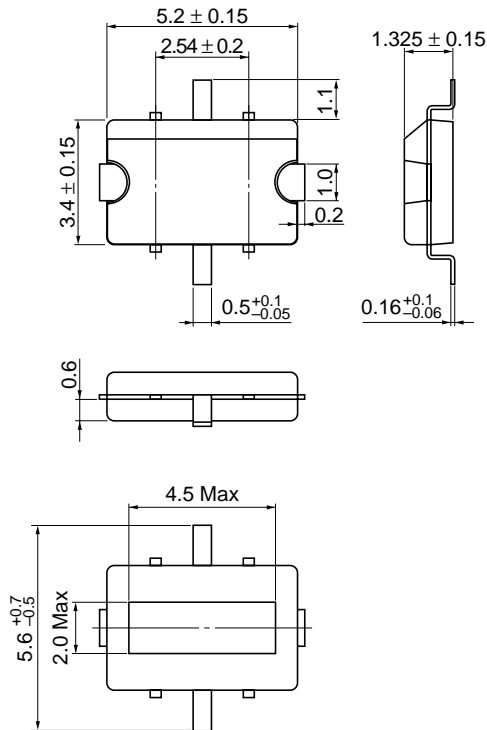




Package Dimensions

As of January, 2001

Unit: mm



Hitachi Code	RP8P
JEDEC	—
EIAJ	—
Mass (reference value)	0.08 g

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