

2SK3390

Silicon N Channel MOS FET
UHF Power Amplifier

HITACHI

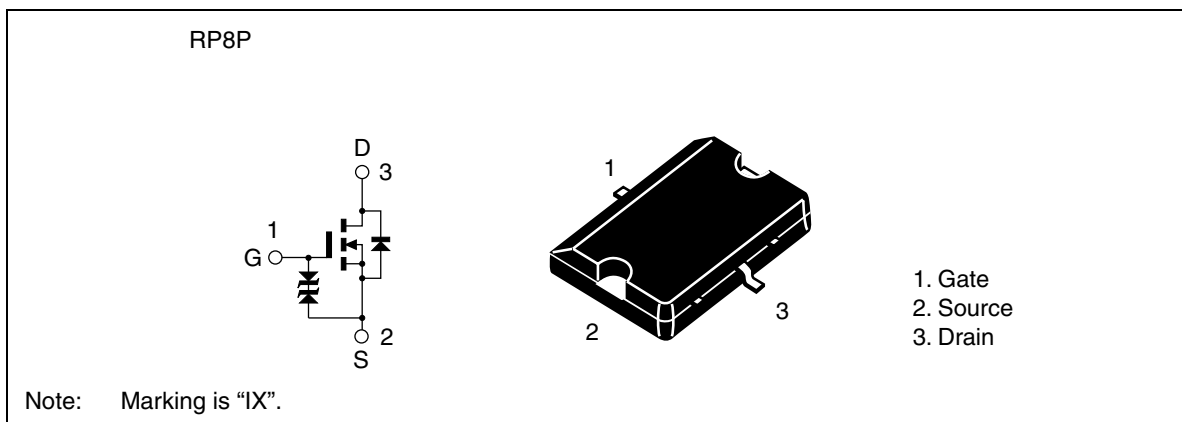
ADE-208-846 (Z)

1st. Edition
Aug.2001

Features

- High power output, High gain, High efficiency
PG = 17 dB, Pout = 6.31 W, η_{add} = 60 % min. (f = 836 MHz)
- Compact package capable of surface mounting

Outline



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

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Absolute Maximum Ratings

(T_a = 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	A
Drain peak current	I _{D(pulse)} ^{Note1}	2.5	A
Channel dissipation	P _{ch} ^{Note2}	20	W
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	−45 to +150	°C

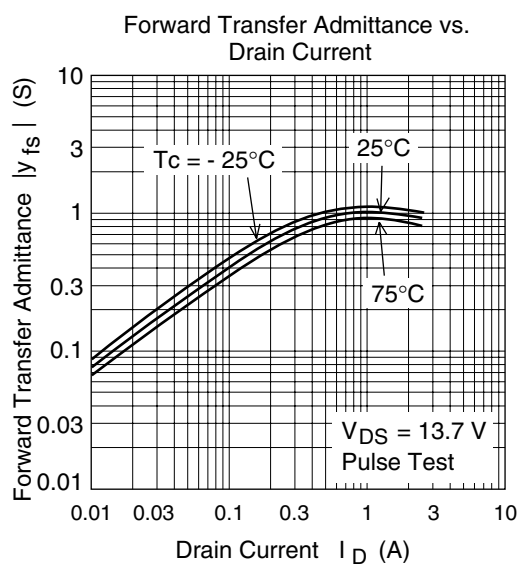
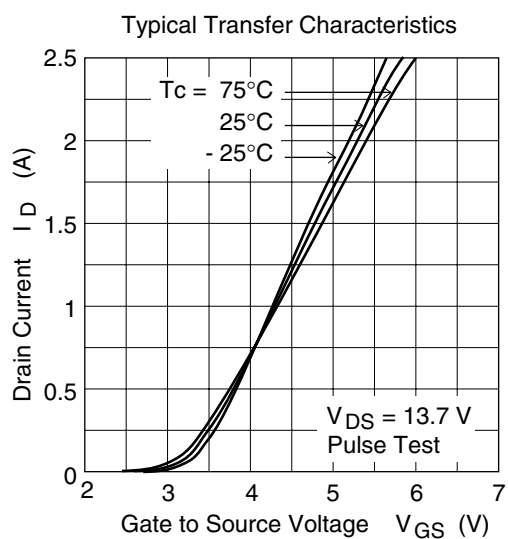
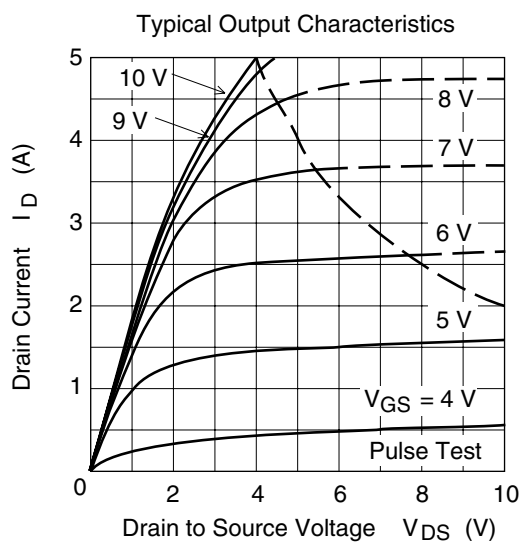
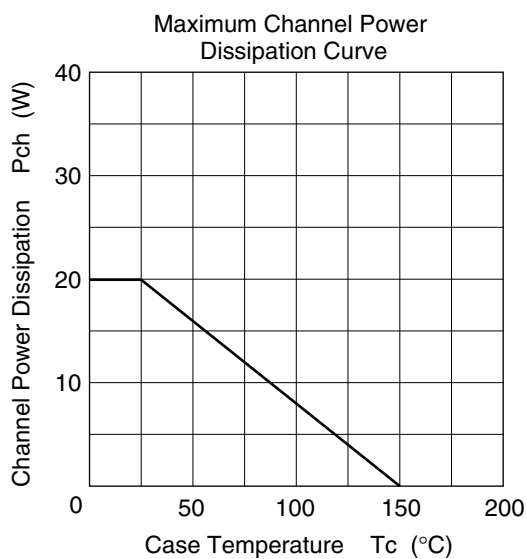
Note: 1. PW < 1sec, T_{ch} < 150 °C
2. Value at T_c = 25°C

Electrical Characteristics

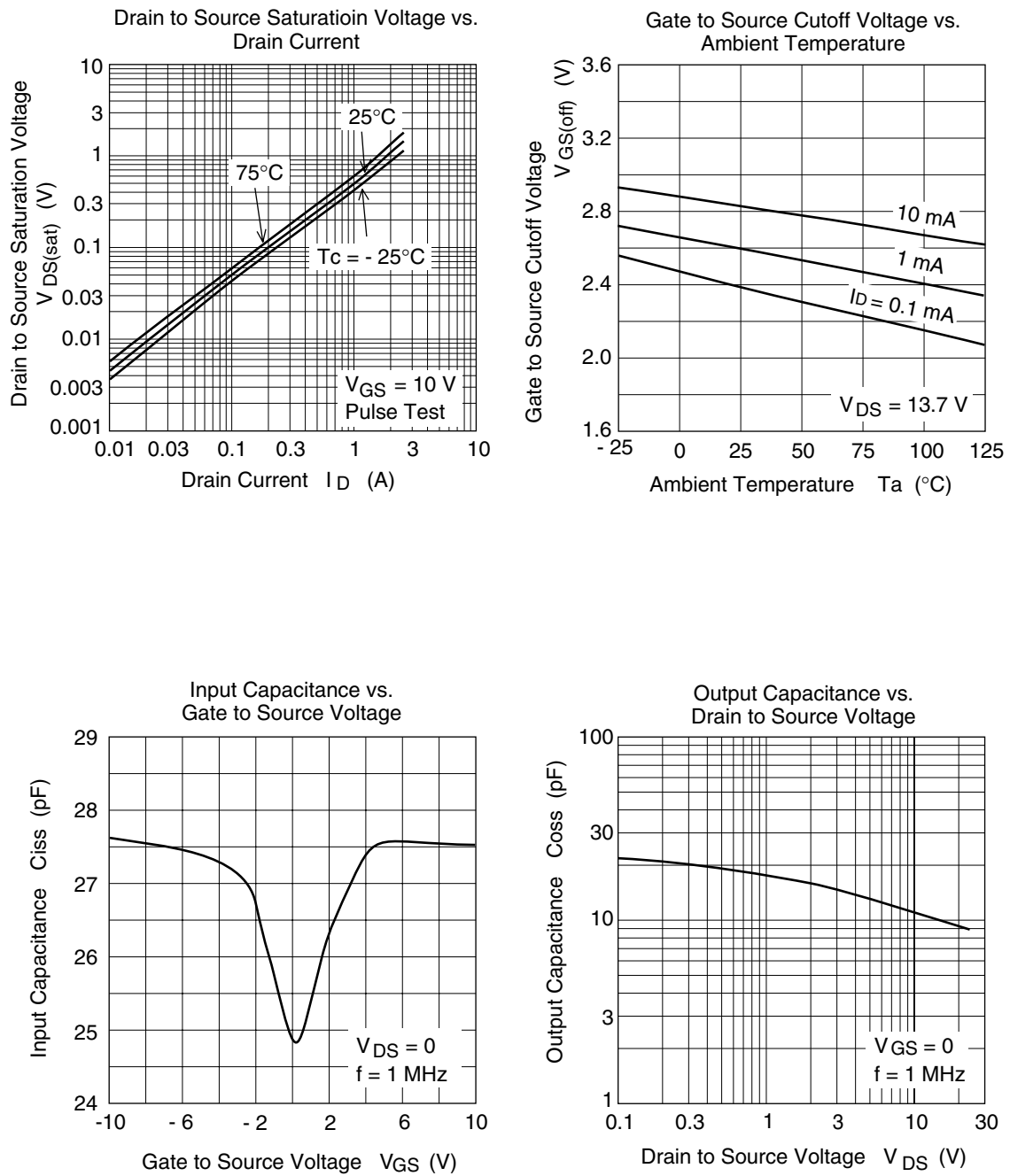
(T_c = 25°C)

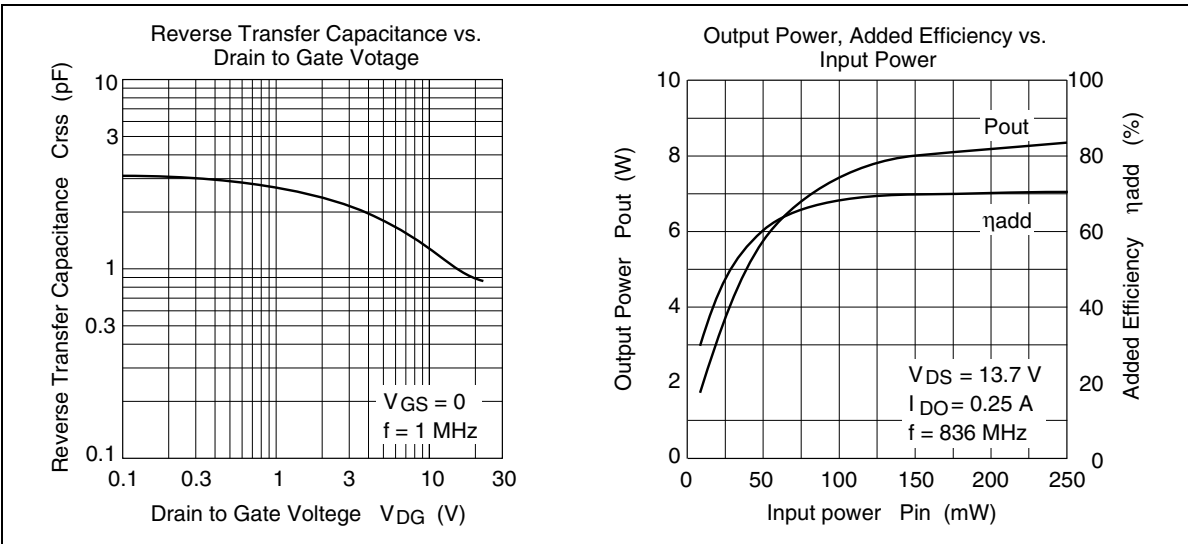
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Zero gate voltage drain current	I _{DSS}	—	—	10	μA	V _{DS} = 13.7 V, V _{GS} = 0
Gate to source leak current	I _{GSS}	—	—	±5	μA	V _{GS} = ±10V, V _{DS} = 0
Gate to source cutoff voltage	V _{GS(off)}	2.2	—	3.0	V	I _D = 1mA, V _{DS} = 13.7V
Input capacitance	C _{iss}	—	27.5	—	pF	V _{GS} = 5V, V _{DS} = 0, f = 1MHz
Output capacitance	C _{oss}	—	10.5	—	pF	V _{DS} = 13.7V, V _{GS} = 0, f = 1MHz
Output Power	P _{out}	6.31	—	—	W	V _{DS} = 13.7V, I _{DO} = 0.25A f = 836 MHz, Pin = 126 mW
Added Efficiency	η _{add}	60	—	—	%	V _{DS} = 13.7V, I _{DO} = 0.25A f = 836 MHz, Pin = 126 mW

Main Characteristics



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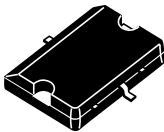
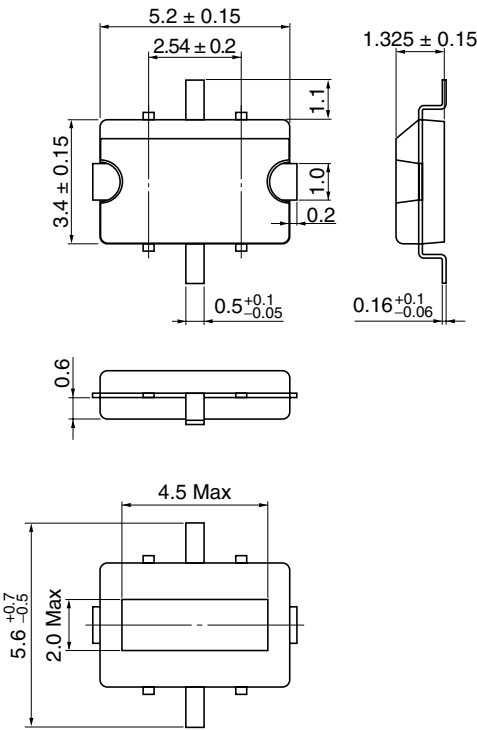




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Package Dimensions

As of January, 2001
Unit: mm



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

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