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# 2SK2216

Silicon N-Channel MOS FET

# HITACHI

ADE-208-346A  
2nd. Edition

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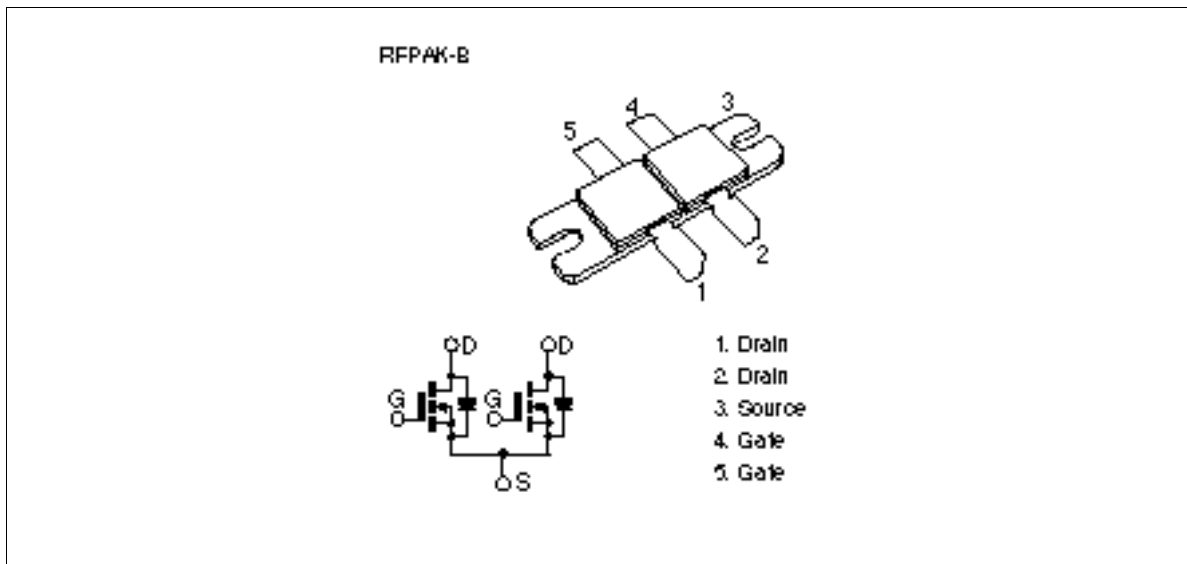
## Application

UHF power amplifier

## Features

- High power output, high gain, high efficiency  
PG = 9.7 dB, Pout = 140 W,  $\eta_D = 55\%$  typ (f = 860 MHz)
- Compact package  
Suitable for push - pull circuit

## Outline



## 2SK2216

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V <sub>DSS</sub>	60	V
Gate to source voltage	V <sub>GSS</sub>	±10	V
Drain current	I <sub>D</sub>	20	A
Channel dissipation	P <sub>ch</sub> * <sup>1</sup>	150	W
Channel temperature	T <sub>ch</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

Note: 1. Value at T<sub>C</sub> = 25°C

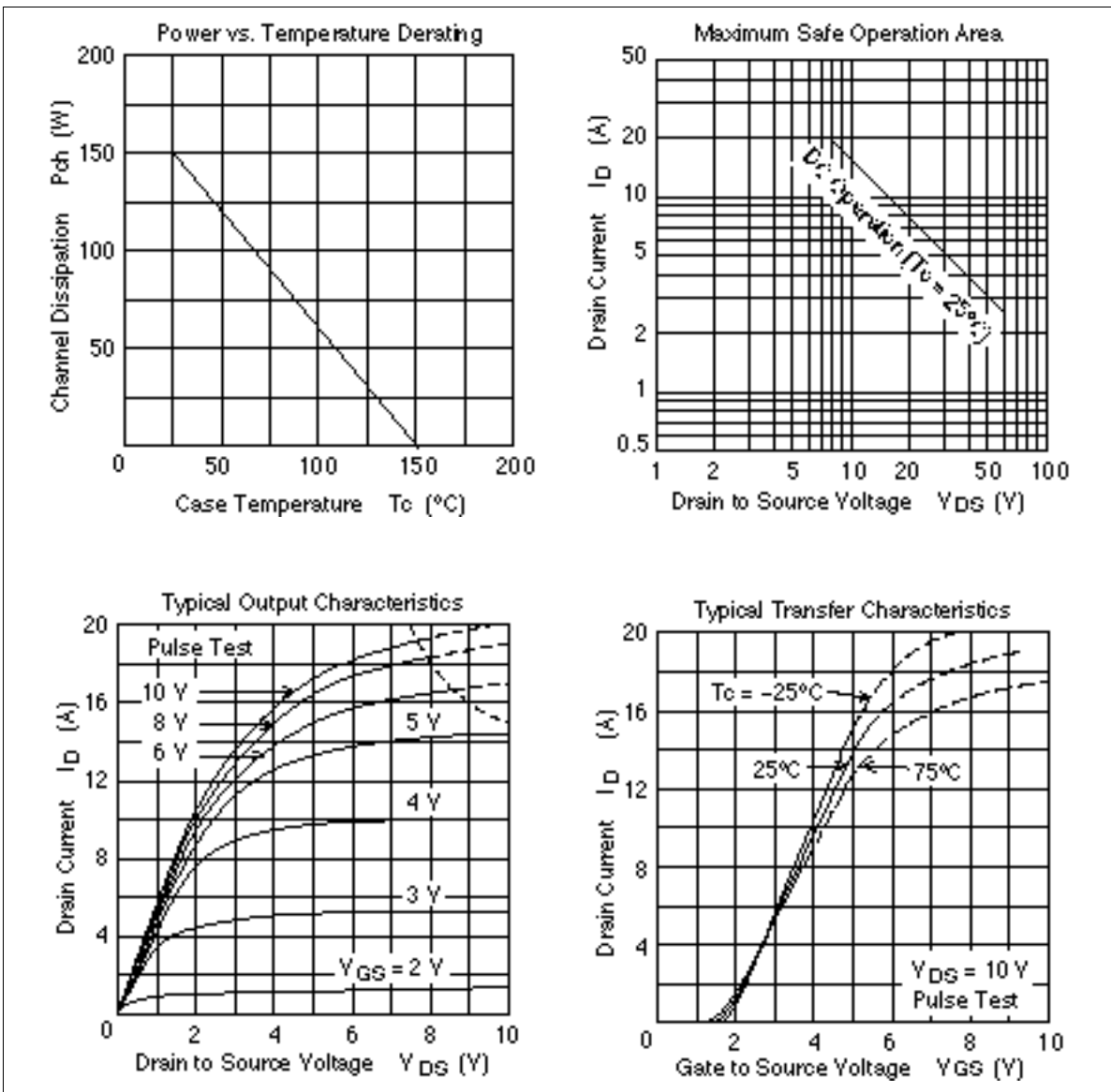
### Electrical Characteristics (T<sub>C</sub> = 25°C)

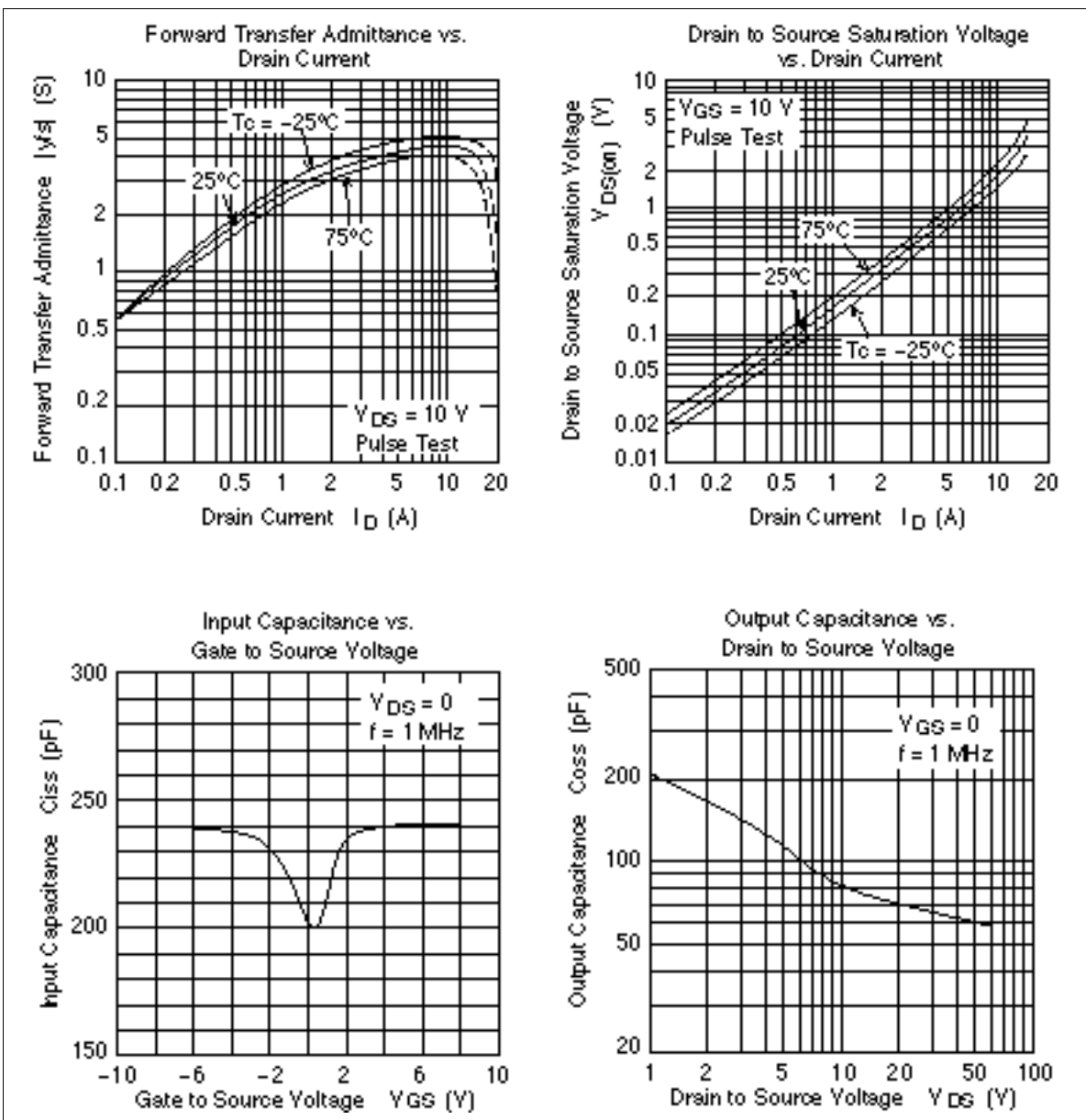
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Drain leakage current* <sup>1</sup>	I <sub>DSS</sub>	—	—	1	mA	V <sub>DS</sub> = 60 V, V <sub>GS</sub> = 0
Gate leakage current* <sup>1</sup>	I <sub>GSS</sub>	—	—	± 3	μA	V <sub>GS</sub> = ± 10 V, V <sub>DS</sub> = 0
Gate to source cutoff voltage* <sup>1</sup>	V <sub>GS(off)</sub>	0.3	—	1.6	V	V <sub>DS</sub> = 10 V, I <sub>D</sub> = 1 mA
Drain to source voltage* <sup>1</sup>	V <sub>DS(on)</sub>	—	1.2	2.5	V	V <sub>GS</sub> = 10 V, I <sub>D</sub> = 5 A* <sup>2</sup>
Forward transfer admittance* <sup>1</sup>	y <sub>fs</sub>	3.0	4.0	—	S	V <sub>DS</sub> = 10 V, I <sub>D</sub> = 5 A* <sup>2</sup>
Input capacitance* <sup>1</sup>	C <sub>iss</sub>	—	250	—	pF	V <sub>GS</sub> = 5 V, V <sub>DS</sub> = 0 f = 1MHz
Output capacitance* <sup>1</sup>	C <sub>oss</sub>	—	85	—	pF	V <sub>DS</sub> = 10V, V <sub>GS</sub> = 0 f = 1MHz
Output power	P <sub>OUT</sub>	100	140	—	W	V <sub>DS</sub> = 28 V, I <sub>DO</sub> = 0.4 A
Drain efficiency	η <sub>D</sub>	—	55	—	%	f = 860 MHz, Pin = 15 W

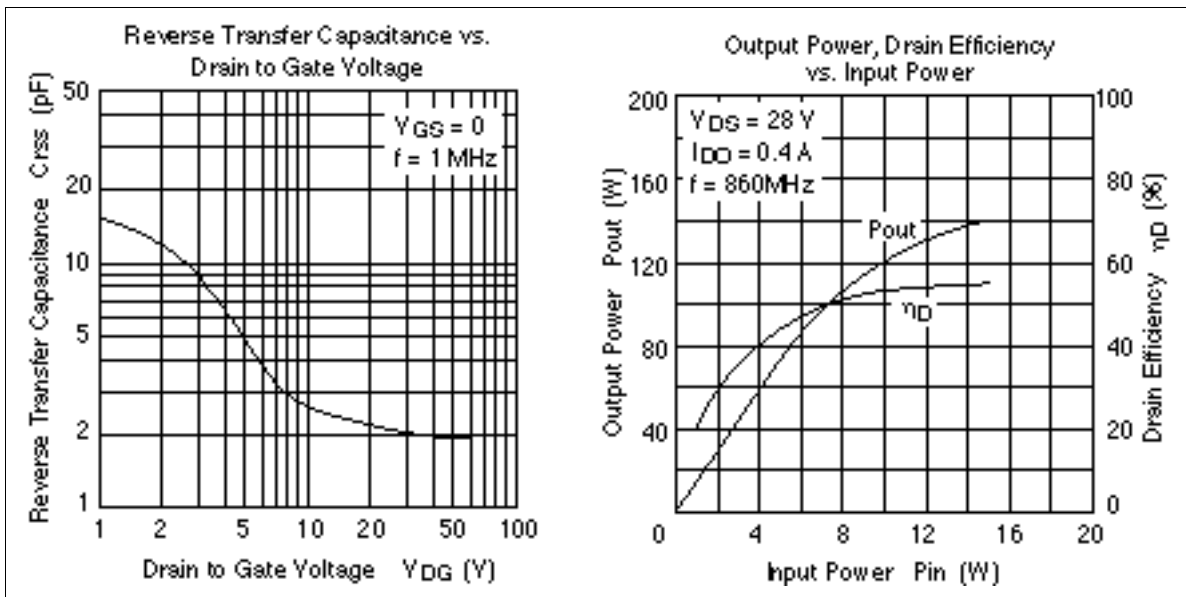
Notes: 1. Shows / unit FET

2. Pulse Test

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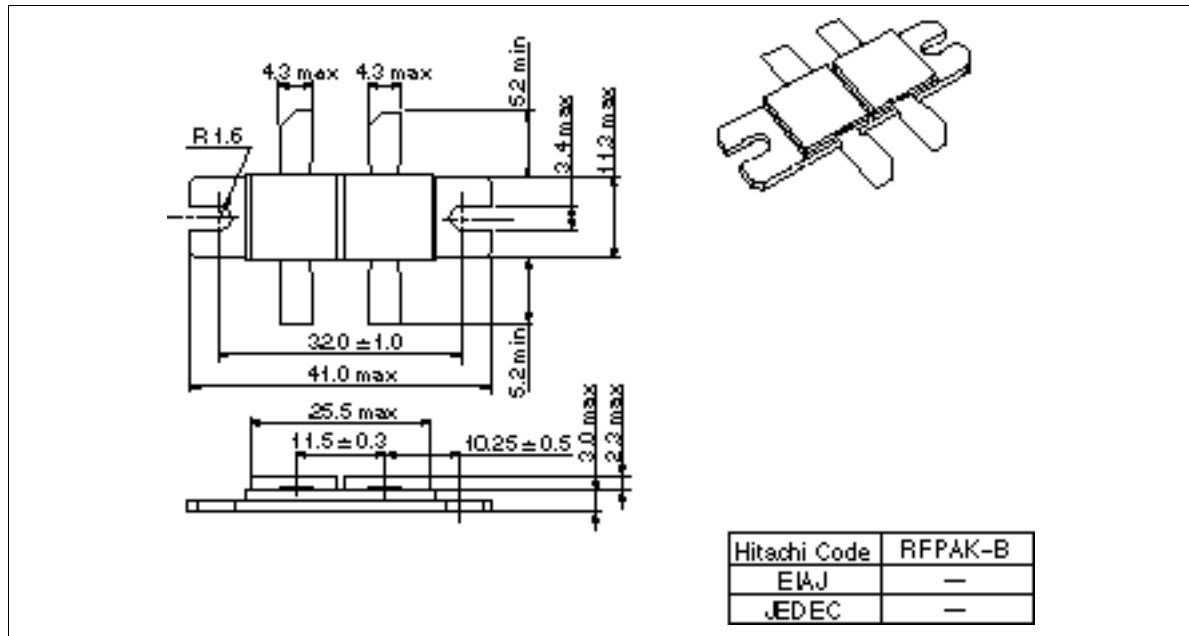




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## Package Dimensions

Unit: mm



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