
2SK2216

Silicon N-Channel MOS FET

HITACHI

ADE-208-346A
2nd. Edition

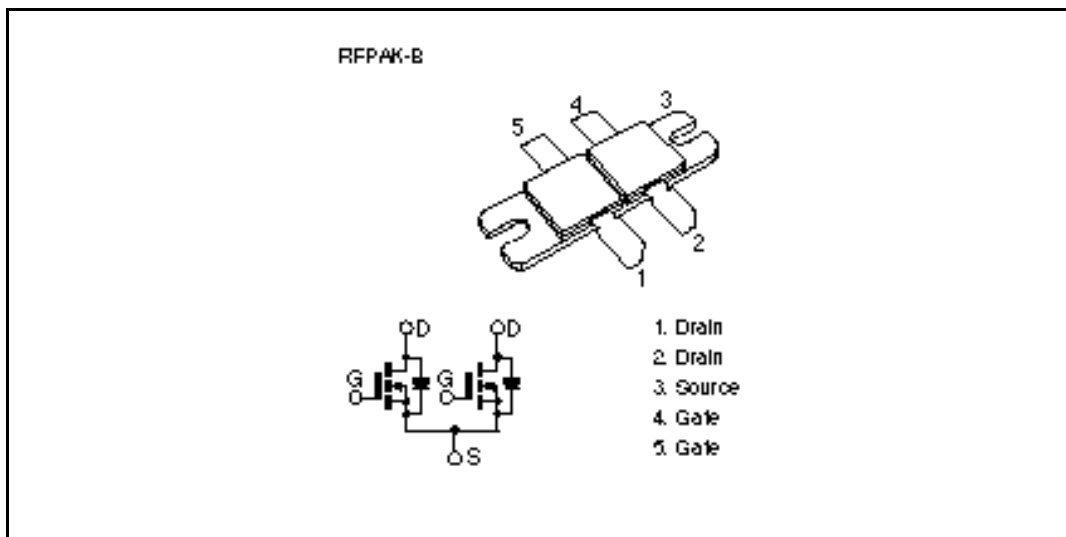
Application

UHF power amplifier

Features

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

Outline



2SK2216

Absolute Maximum Ratings (Ta = 25°C)

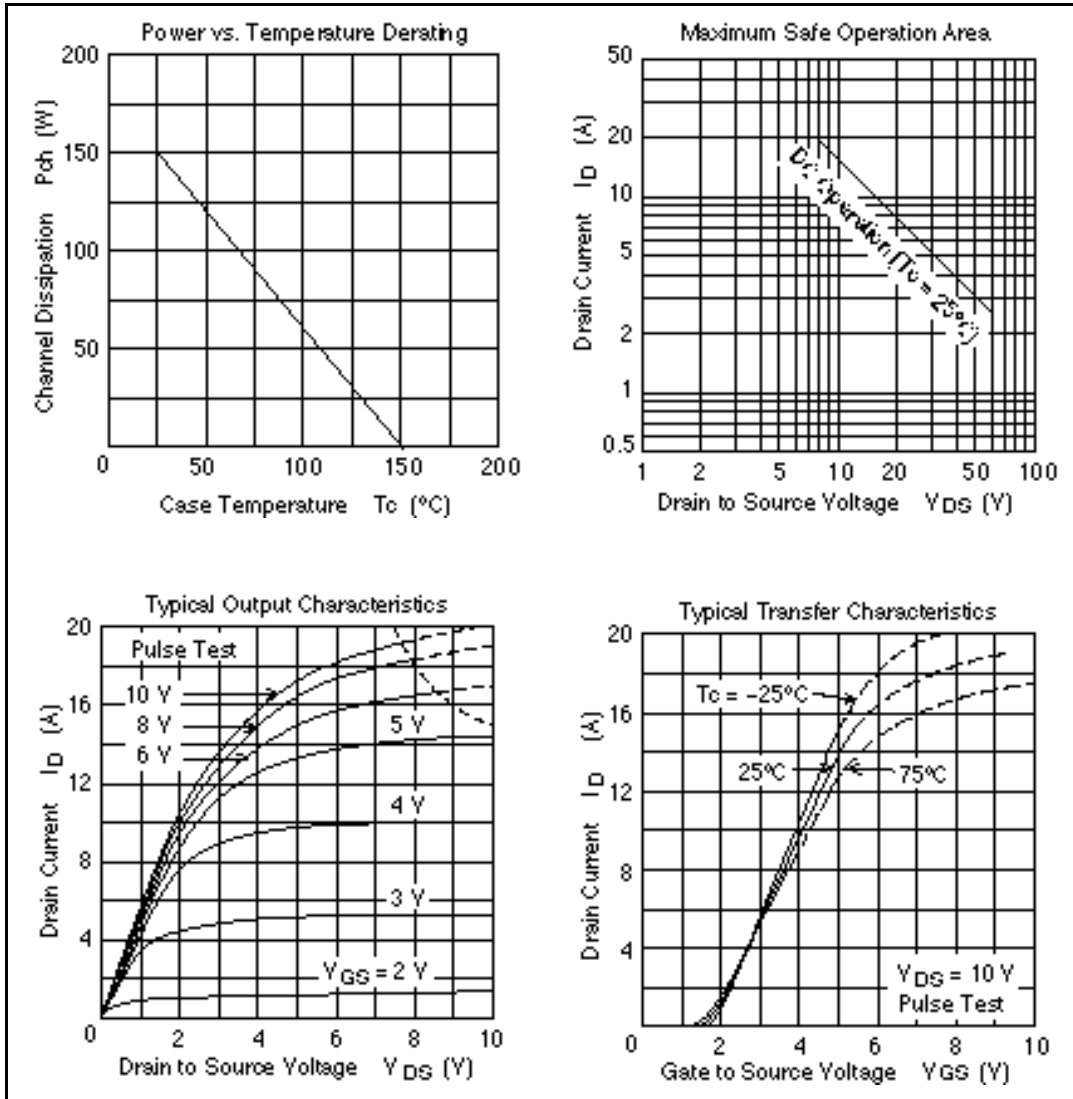
Item	Symbol	Ratings	Unit
Drain to source voltage	V _{DSS}	60	V
Gate to source voltage	V _{GSS}	±10	V
Drain current	I _D	20	A
Channel dissipation	P _{ch} *1	150	W
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

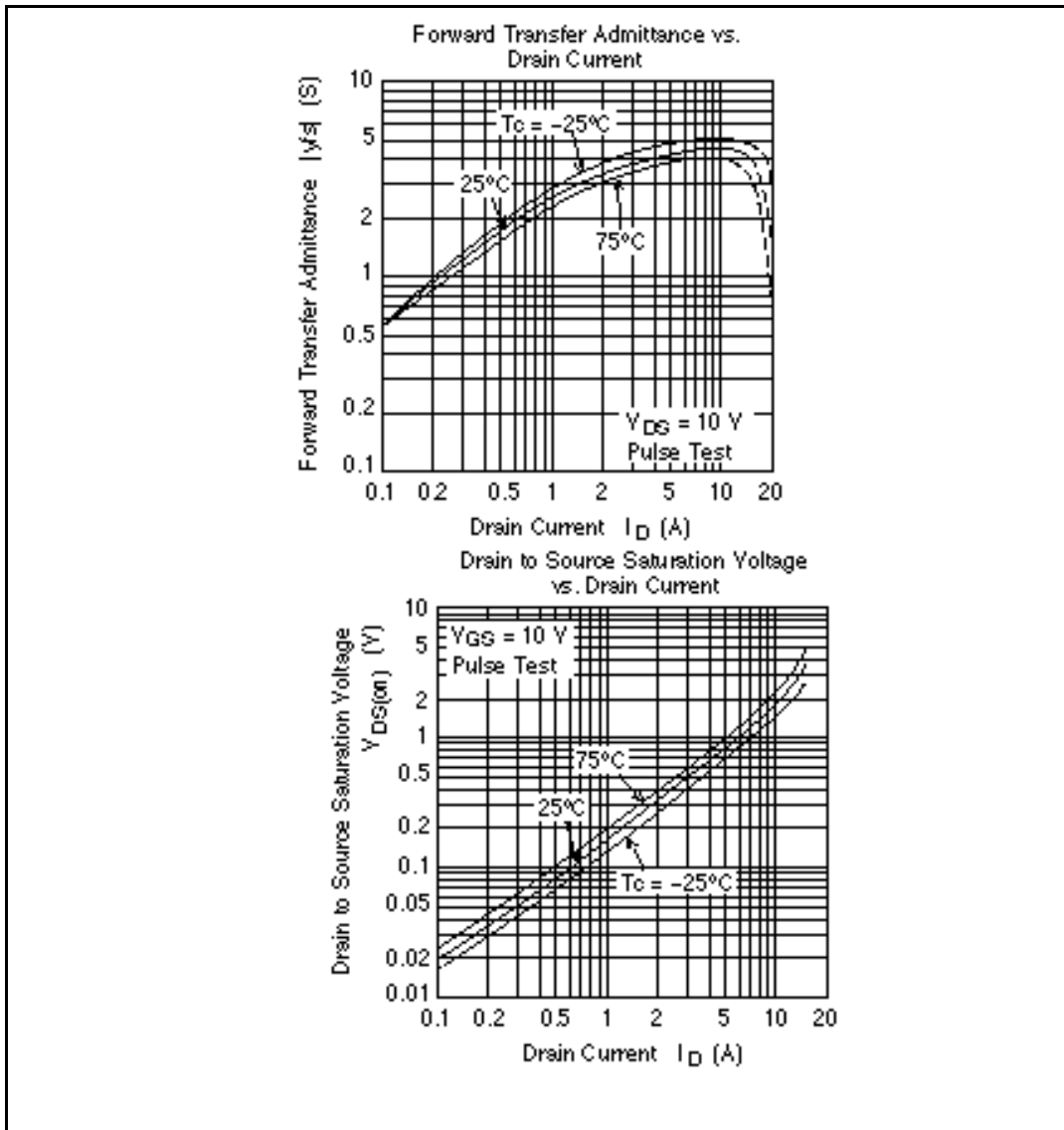
Note: 1. Value at T_C = 25°C

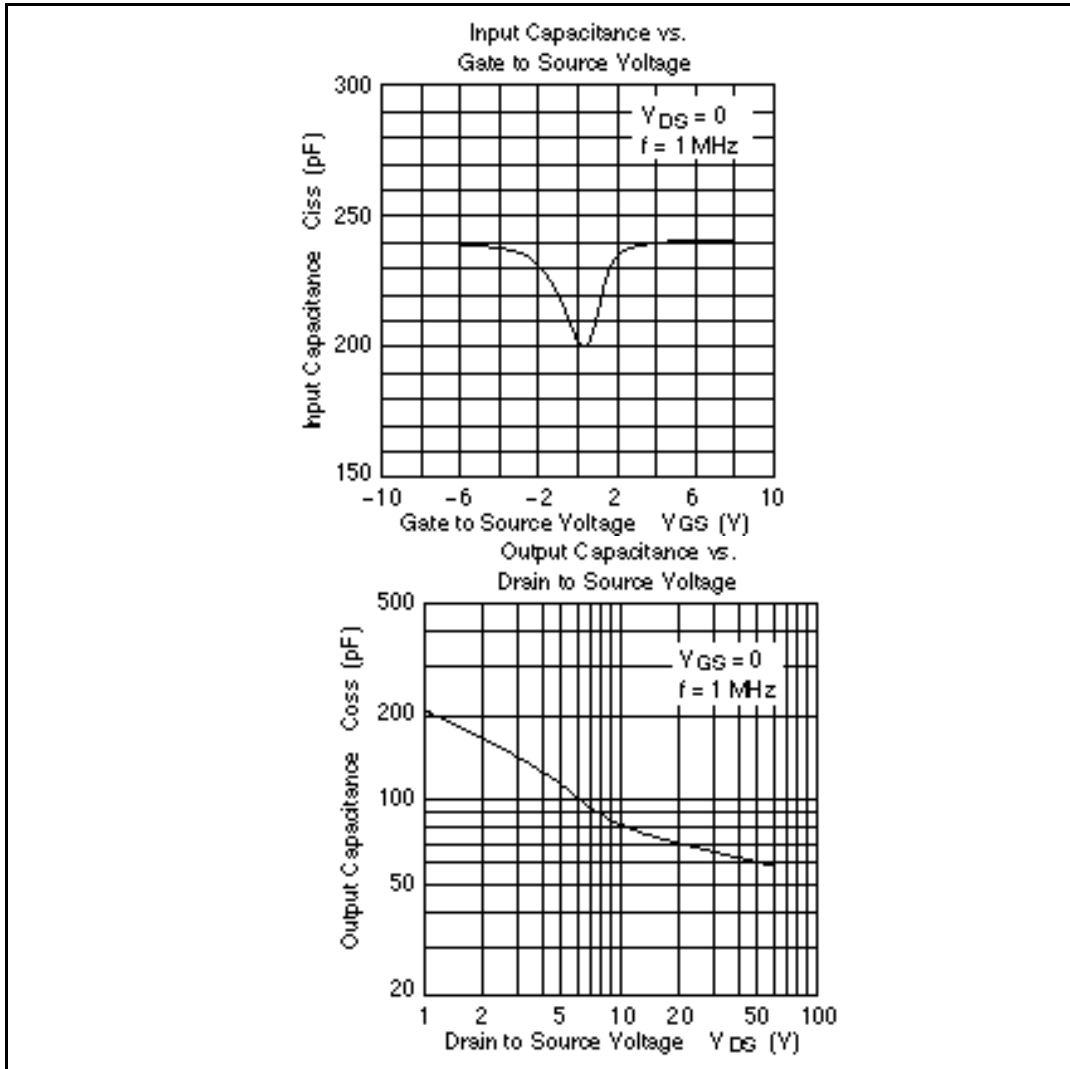
Electrical Characteristics (T_C = 25°C)

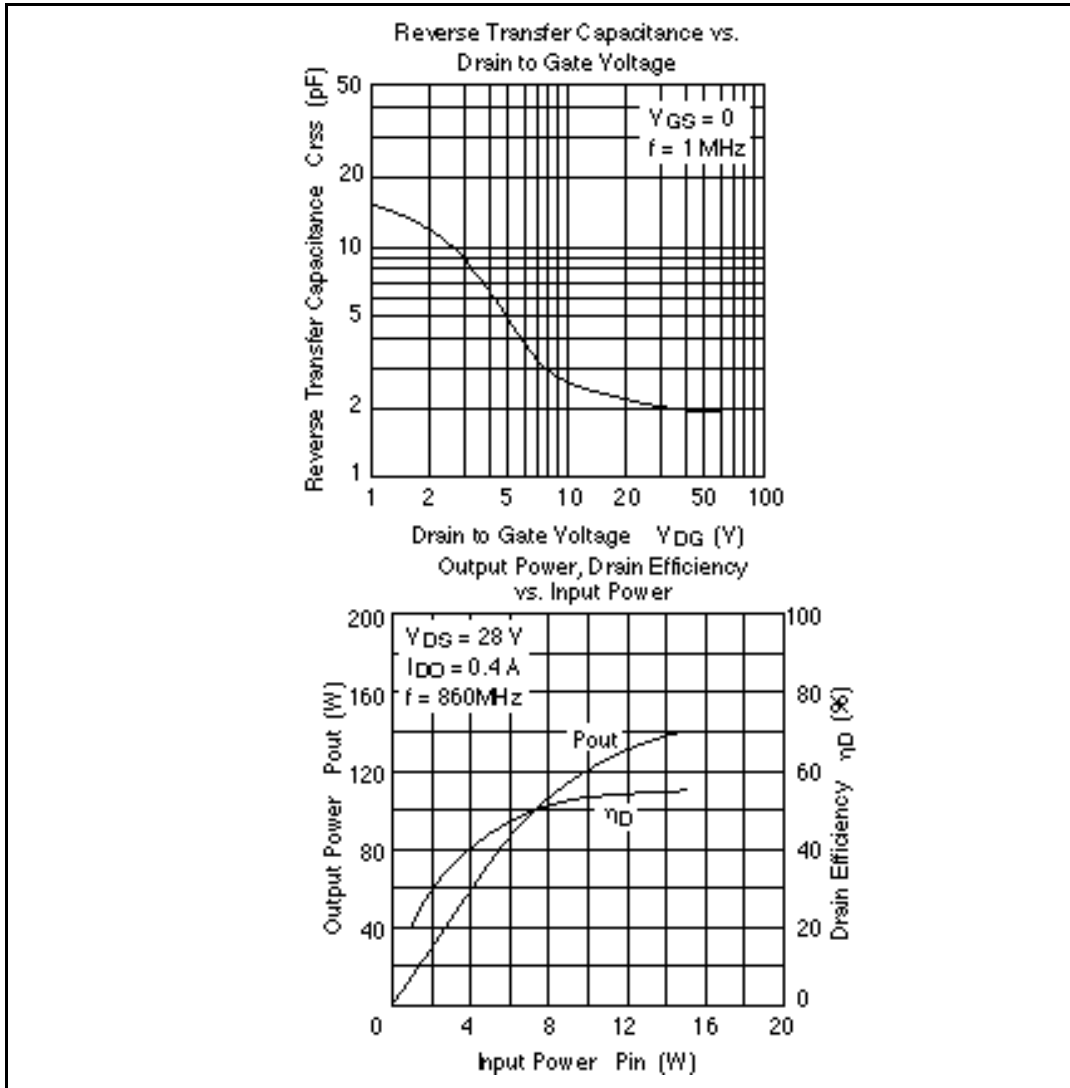
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Drain leakage current*1	I _{DSS}	—	—	1	mA	V _{DS} = 60 V, V _{GS} = 0
Gate leakage current*1	I _{GSS}	—	—	± 3	μA	V _{GS} = ± 10 V, V _{DS} = 0
Gate to source cutoff voltage*1	V _{GS(off)}	0.3	—	1.6	V	V _{DS} = 10 V, I _D = 1 mA
Drain to source voltage*1	V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

Notes: 1. Shows / unit FET
2. Pulse Test



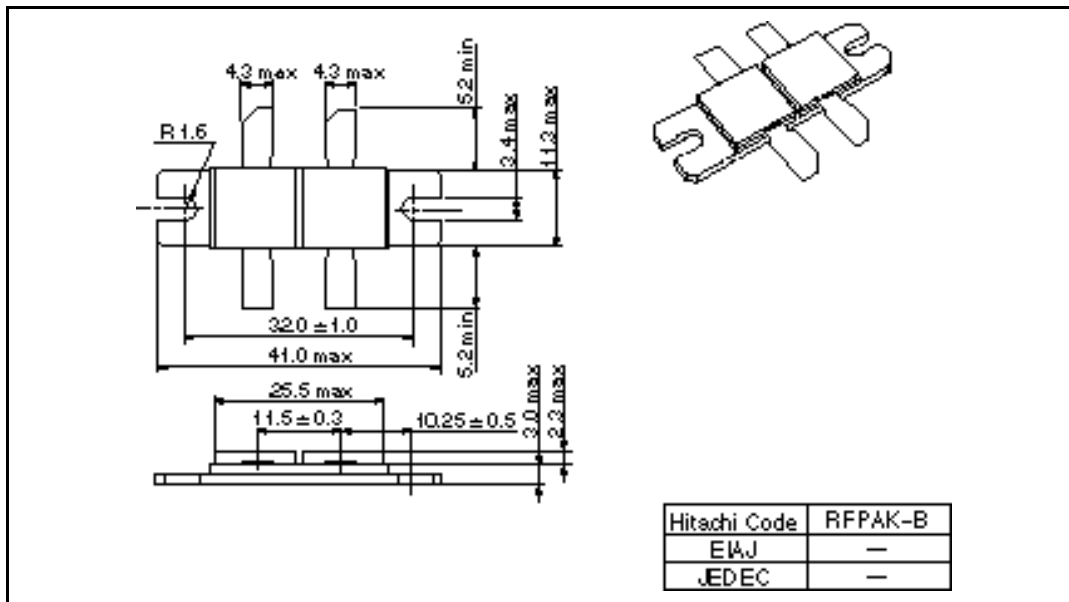






Package Dimensions

Unit: mm



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, 2-6-2, 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, 94005-1835
U.S.A.
Tel 415-589-8300
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: 0628-778022

Hitachi Asia Pte. Ltd.
#5 Collyer Quay #20-00
Hitachi Tower
Singapore 04104
Tel 535-2400
Fax: 535-1533

Hitachi Asia (Hong Kong) Ltd.
Unit 706, North Tower,
World Finance Centre
Harbour City, Canton Road
Tsim Sha Tsui, Kowloon
Hong Kong
Tel 27359218
Fax: 27306074

HITACHI