Silicon N-Channel MOS FET



ADE-208-346A 2nd. Edition

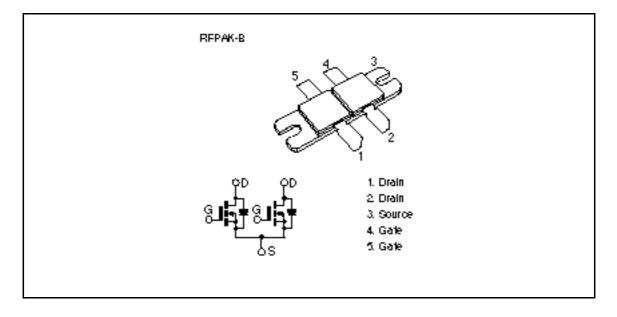
Application

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





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	Ι _D	20	А	
Channel dissipation	Pch*1	150	W	
Channel temperature	Tch	150	°C	
Storage temperature	Tstg	-55 to +150	°C	

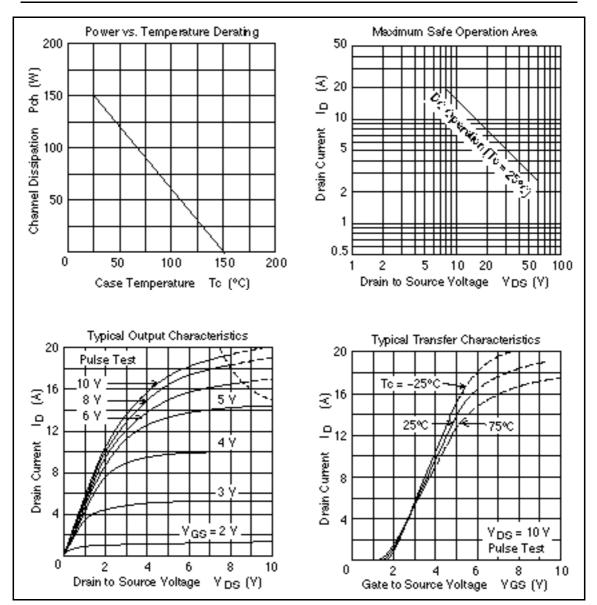
Note: 1. Value at $T_c = 25^{\circ}C$

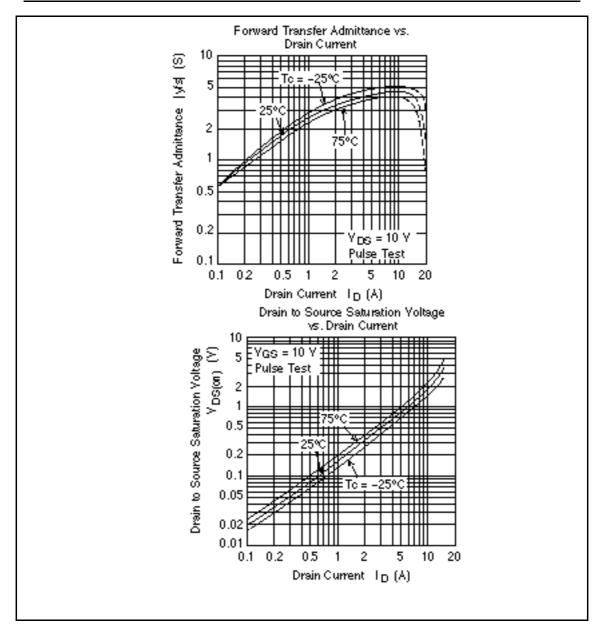
Electrical Characteristics ($T_c = 25^{\circ}C$)

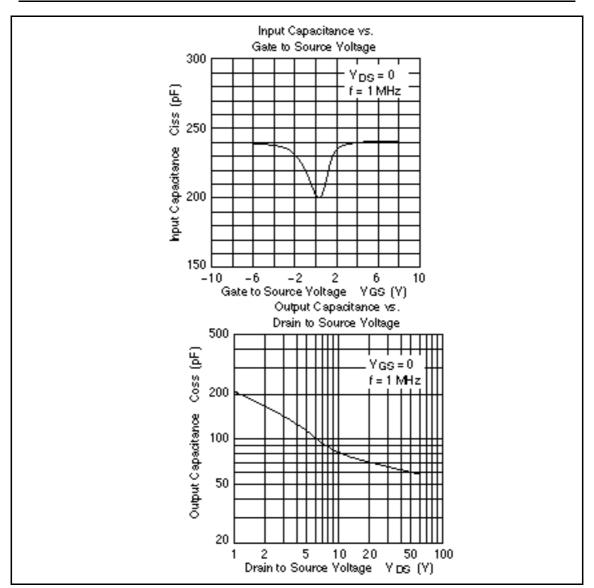
Item	Symbol	Min	Тур	Мах	Unit	Test conditions
Drain leakage current*1	I _{DSS}		—	1	mA	$V_{\rm DS} = 60 \ V, \ V_{\rm GS} = 0$
Gate leakage current*1	I _{GSS}		—	± 3	μA	$V_{GS} = \pm 10 \text{ V}, V_{DS} = 0$
Gate to source cutoff voltage*1	$V_{\text{GS(off)}}$	0.3		1.6	V	$V_{\rm DS} = 10 \text{ V}, \text{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

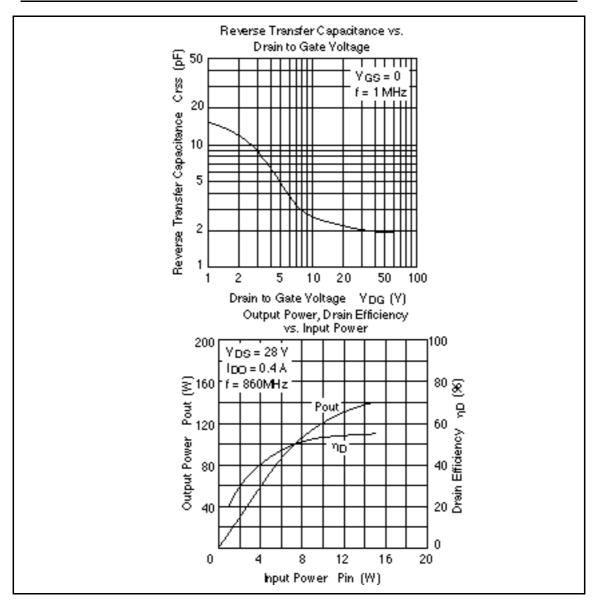
Notes: 1. Shows / unit FET

2. Pulse Test



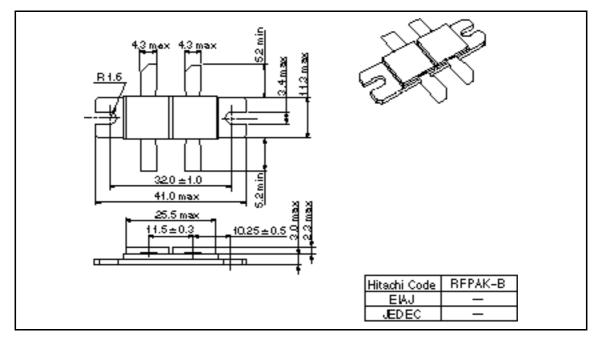






Package Dimensions

Unit: mm



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