

## 2SK1215

Silicon N-Channel MOS FET

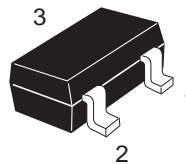
REJ03G0813-0200  
(Previous ADE-208-1176)  
Rev.2.00  
Aug.10.2005

### Application

VHF amplifier

### Outline

RENESAS Package code: PTSP0003ZA-A  
(Package name: CMPAK<sup>®</sup>)



1. Gate
2. Drain
3. Source

\*CMPAK is a trademark of Renesas Technology Corp.

## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	$V_{DSX}^{*1}$	20	V
Gate to source voltage	$V_{GSS}$	±5	V
Drain current	$I_D$	30	mA
Gate current	$I_G$	±1	mA
Channel power dissipation	Pch	100	mW
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55 to +150	°C

Note: 1.  $V_{GS} = -4$  V

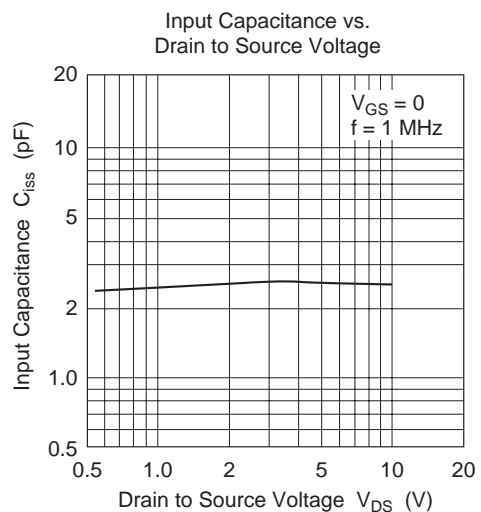
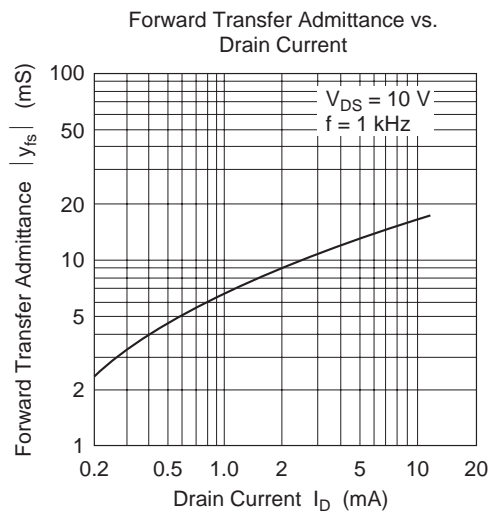
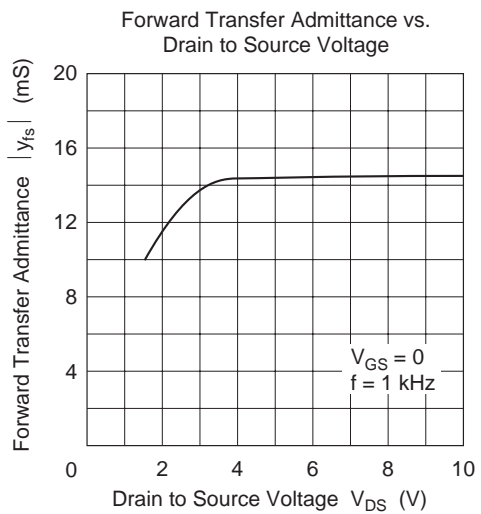
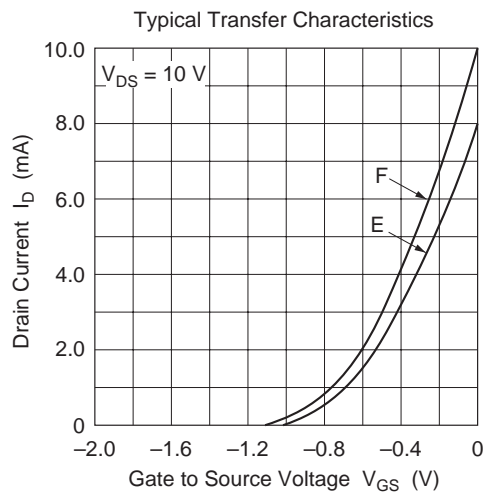
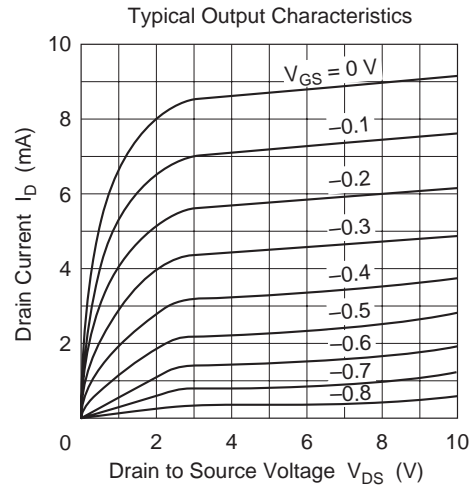
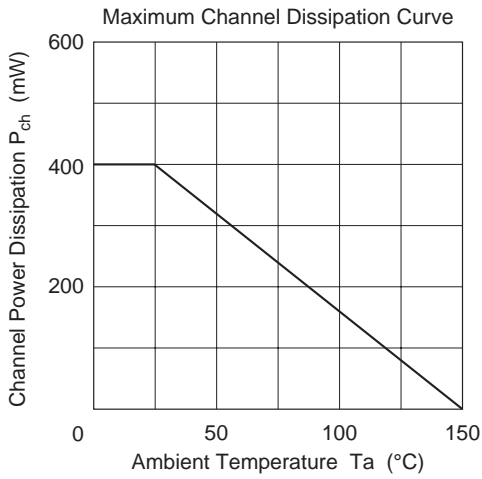
## Electrical Characteristics

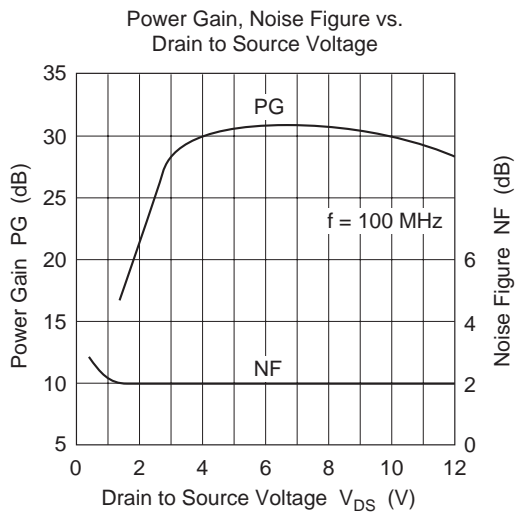
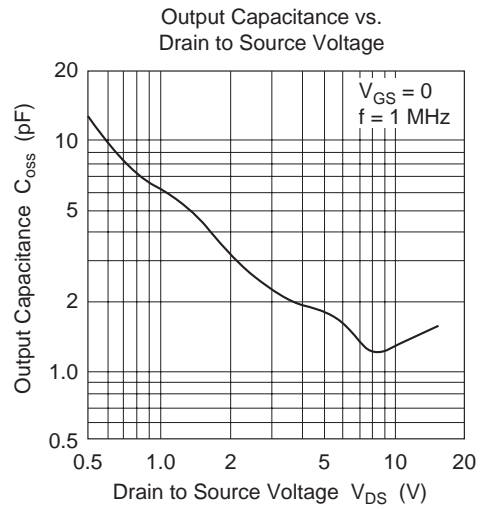
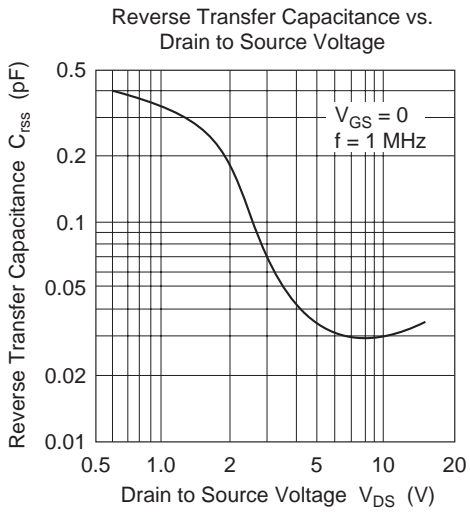
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Drain to source breakdown voltage	$V_{(BR)DSX}$	20	—	—	V	$I_D = 100 \mu A, V_{GS} = -4$ V
Gate cutoff current	$I_{GSS}$	—	—	±20	nA	$V_{GS} = \pm 5$ V, $V_{DS} = 0$
Drain current	$I_{DSS}^{*1}$	6	—	12	mA	$V_{DS} = 10$ V, $V_{GS} = 0$
Gate to source cutoff voltage	$V_{GS(off)}$	0	—	-2.0	V	$V_{DS} = 10$ V, $I_D = 10 \mu A$
Forward transfer admittance	$ y_{fs} $	8	14	—	mS	$V_{DS} = 10$ V, $V_{GS} = 0$ , $f = 1$ kHz
Input capacitance	$C_{iss}$	—	2.5	—	pF	$V_{DS} = 10$ V, $V_{GS} = 0$ , $f = 1$ MHz
Output capacitance	$C_{oss}$	—	1.6	—	pF	
Reverse transfer capacitance	$C_{rss}$	—	0.03	—	pF	
Power gain	PG	24	—	—	dB	$V_{DS} = 10$ V, $V_{GS} = 0$ , $f = 100$ MHz
Noise figure	NF	—	—	3	dB	

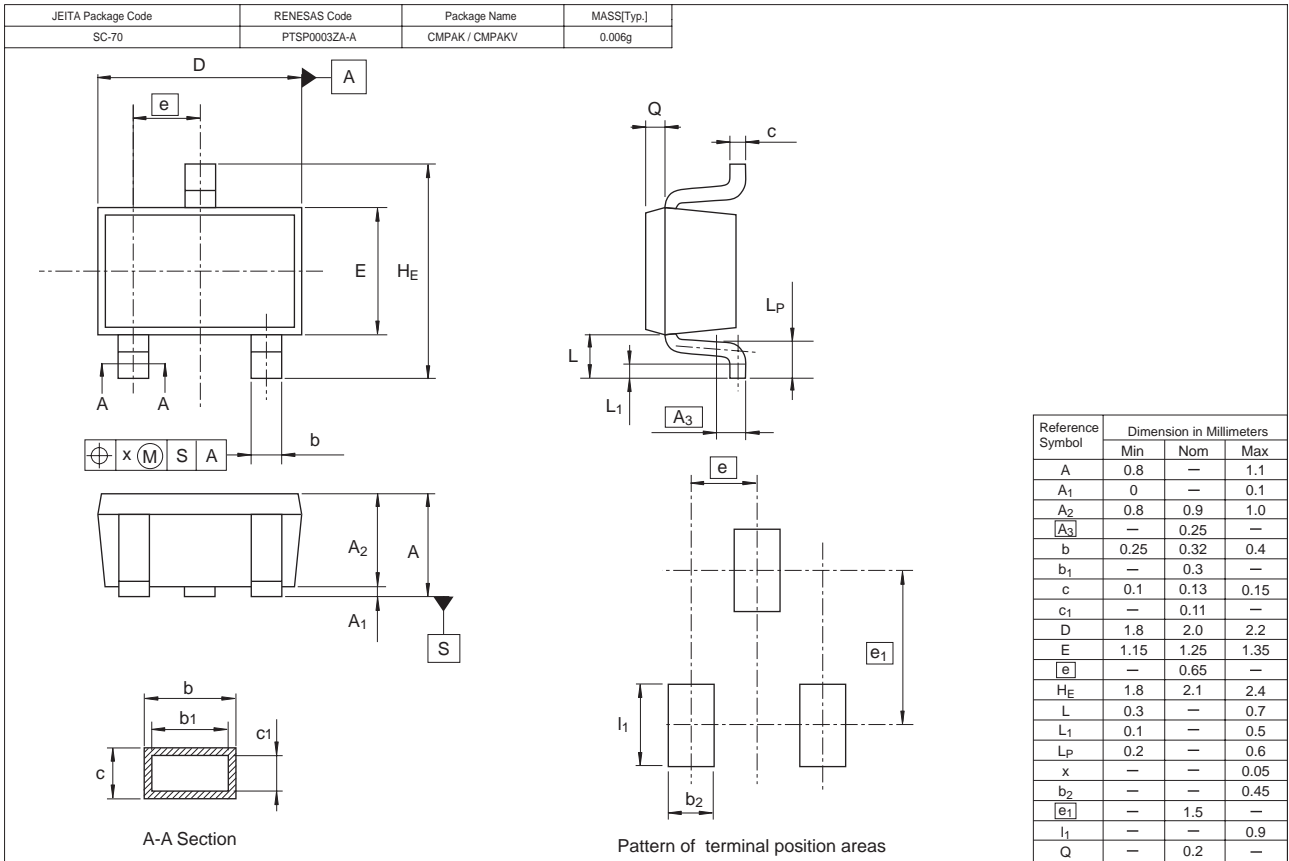
Note: 1. The 2SK1215 is grouped by  $I_{DSS}$  as follows.

Grade	E	F
Mark	IGE	IGF
$I_{DSS}$	6 to 10	8 to 12





### Package Dimensions



### Ordering Information

Part Name	Quantity	Shipping Container
2SK1215IGETL	3000	φ 178 mm Reel, 8 mm Emboss Taping
2SK1215IGFTL	3000	φ 178 mm Reel, 8 mm Emboss Taping

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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