HITACHI

2SK1215

Silicon N channel MOS FET
VHF High Frequency Amplifier

Table 1 Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Drain to source voltage	V_{DSX}*	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	℃
Storage temperature	Tstg	−55 to +150	℃

* V_{GS} = −4 V

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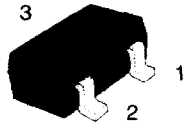

1. Gate
2. Drain
3. Source

Table 2 Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Drain to source breakdown voltage	$V_{(BR)DSX}$	20	—	—	V	I_D = 100 µA, V_{GS} = −4 V
Gate cutoff current	I_{GSS}	—	—	±20	nA	V_{GS} = ±5 V, V_{DS} = 0
Drain current	I_{DSS}*	4	—	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 µA
Forward transfer admittance	$\|y_{fs}\|$	8	14	—	ms	V_{DS} = 10 V, V_{GS} = 0, f = 1 kHz
Input capacitance	Ciss	—	2.5	—	pF	V_{DS} = 10 V, V_{GS} = 0, f = 1 MHz
Output capacitance	Coss	—	1.6	—	pF	
Reverse transfer capacitance	Crss	—	0.03	—	pF	
Power gain	PG	24	—	—	dB	V_{DS} = 10 V, V_{GS} = 0, f = 100 MHz
Noise figure	NF	—	—	3	dB	

* The 2SK1215 is grouped by I_{DSS} as follows.

Grade	D	E	F
Mark	IGD	IGE	IGF
I_{DSS}	4 to 8	6 to 10	8 to 12

- See characteristic curves of 2SK359.