

# SANYO Semiconductors DATA SHEET

# 2SK3737 --- N-Channel Silicon MOSFET FM Tuner, VHF Amplifier Applications

### Features

- · Low noise.
- High power gain.
- Small reverse transfer capacitance.

## Specifications

#### Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	VDS		15	V
Gate-to-Source Voltage	VGS		±5	V
Drain Current	۱D		30	mA
Allowable Power Dissipation	PD		150	mW
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

#### Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions		Ratings		
			min	typ	max	Unit
Drain-to-Source Voltage	VDSX	V <sub>GS</sub> =-4V, I <sub>D</sub> =100µA	15			V
Gate-to-Source Leakage Current	IGSS	VDS=0V, VGS=±5V			±10	nA
Zero-Gate Voltage Drain Current	IDSS	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V	6.0*		12*	mA
Cutoff Voltage	V <sub>GS</sub> (off)	V <sub>DS</sub> =10V, I <sub>D</sub> =100µA			-2.2	V
Forward Transfer Admittance	yfs	VDS=10V, VGS=0V, f=1kHz	11	16		mS
Input Capacitance	Ciss	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1MHz		2.4		pF
Reverse Transfer Capacitance	Crss	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1MHz		0.035		pF
Power Gain	PG	VDS=10V, VGS=0V, f=100MHz		35		dB
		See specified Test Circuit.				
Noise Figure	NF	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=100MHz		2.0		dB
		See specified Test Circuit.				

Marking : KA

\* : The 2SK3737 is classified by IDSS as follows (unit : mA) :

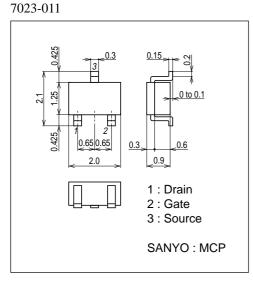
Rank	5	6
IDSS	6 to 10	8 to 12

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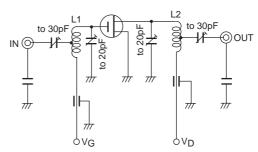
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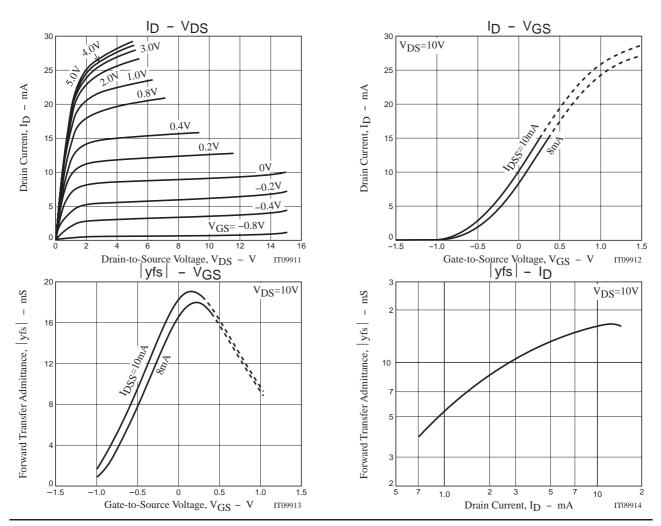
unit : mm

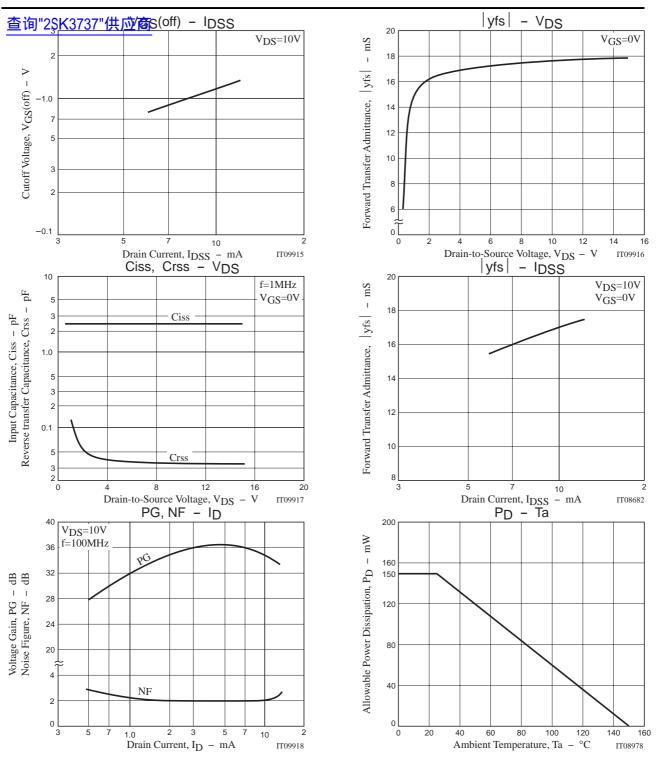


#### PG, NF Specified Test Circuit



- L1 : 1.0mm¢ copper wire 10mm¢ 6T, tap : 2.5T from H side
- $L2:1.0mm\varphi$  copper wire 10mm $\varphi$  7T, tap : 4T from H side





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