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SANYO Semiconductor (U.S.A) Corporation
2SK3737-5-TL-E

For any questions, you can email us directly:
sales@integrated-circuit.com

Ordering number : ENN8390

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	V_{DS}		15	V
Gate-to-Source Voltage	V_{GS}		±5	V
Drain Current	I_D		30	mA
Allowable Power Dissipation	P_D		150	mW
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Voltage	V_{DSX}	V_{GS}=-4V, I_D=100μA	15			V
Gate-to-Source Leakage Current	I_{GSS}	V_{DS}=0V, V_{GS}=±5V			±10	nA
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=10V, V_{GS}=0V	6.0*		12*	mA
Cutoff Voltage	V_{GS}(off)	V_{DS}=10V, I_D=100μA			-2.2	V
Forward Transfer Admittance	|yfs|	V_{DS}=10V, V_{GS}=0V, f=1kHz	11	16		mS
Input Capacitance	Ciss	V_{DS}=10V, V_{GS}=0V, f=1MHz		2.4		pF
Reverse Transfer Capacitance	Crss	V_{DS}=10V, V_{GS}=0V, f=1MHz		0.035		pF
Power Gain	PG	V_{DS}=10V, V_{GS}=0V, f=100MHz See specified Test Circuit.		35		dB
Noise Figure	NF	V_{DS}=10V, V_{GS}=0V, f=100MHz See specified Test Circuit.		2.0		dB

Marking : KA

* : The 2SK3737 is classified by I_{DSS} as follows (unit : mA) :

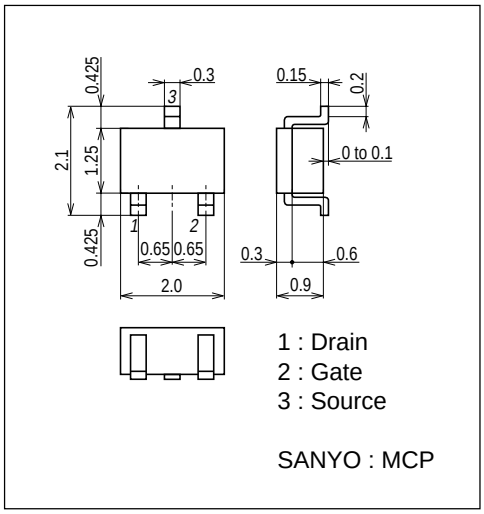
Rank	5	6
I_{DSS}	6 to 10	8 to 12

2SK3737

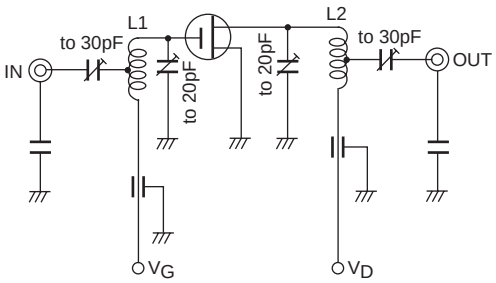
Package Dimensions

unit : mm

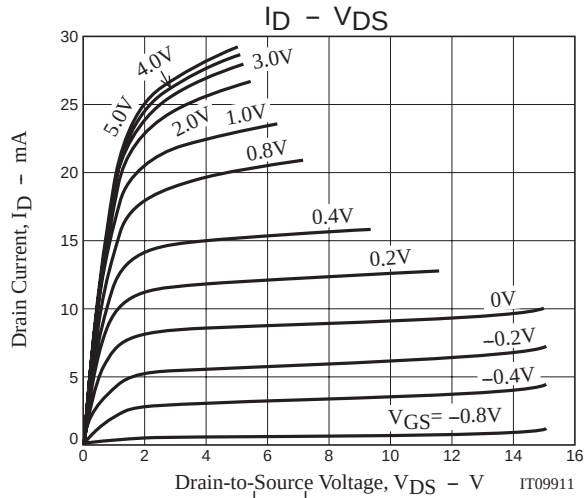
7023-011

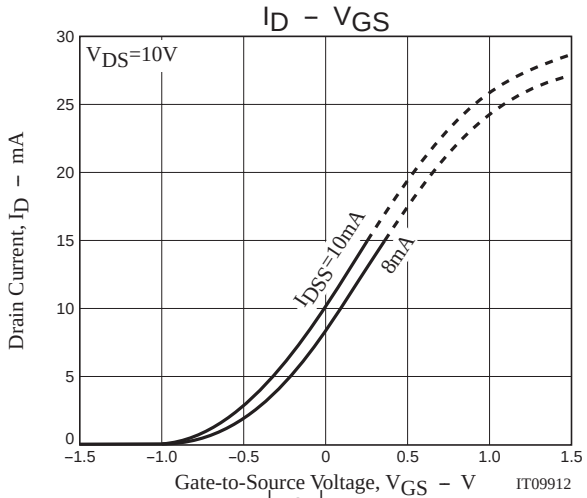


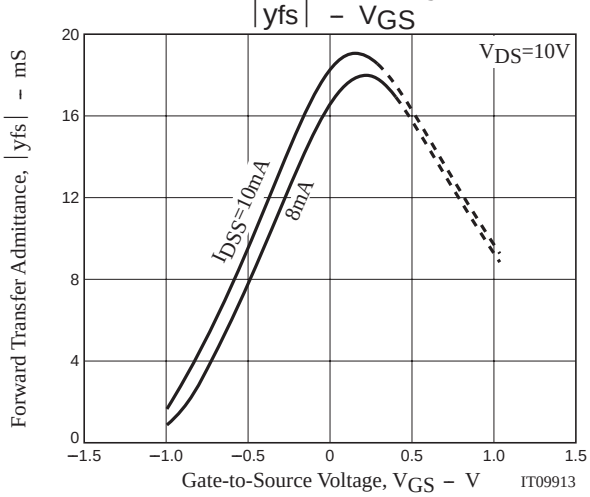
PG, NF Specified Test Circuit

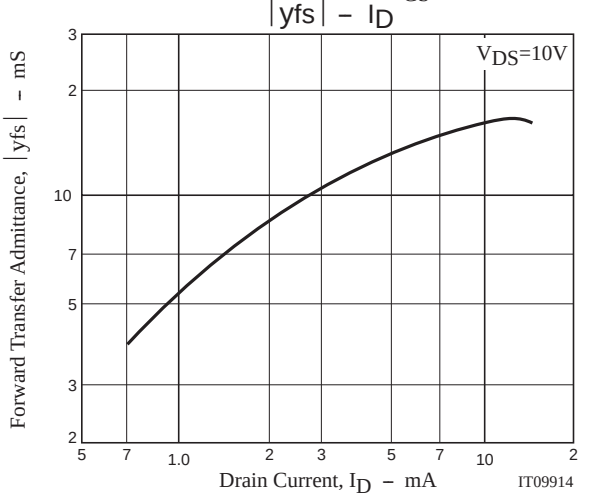


L1 : 1.0mmϕ copper wire 10mmϕ 6T, tap : 2.5T from H side
L2 : 1.0mmϕ copper wire 10mmϕ 7T, tap : 4T from H side









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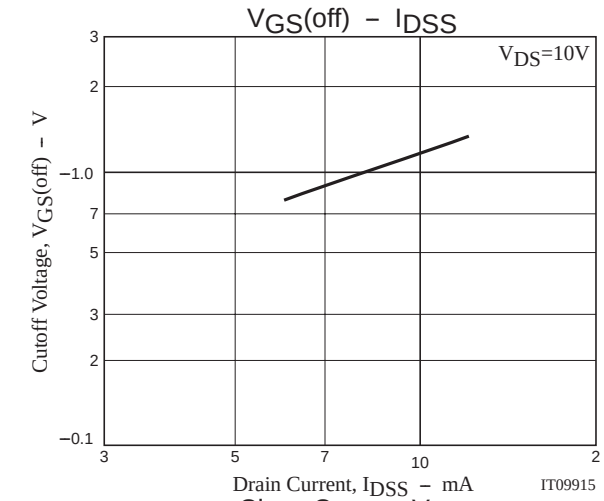
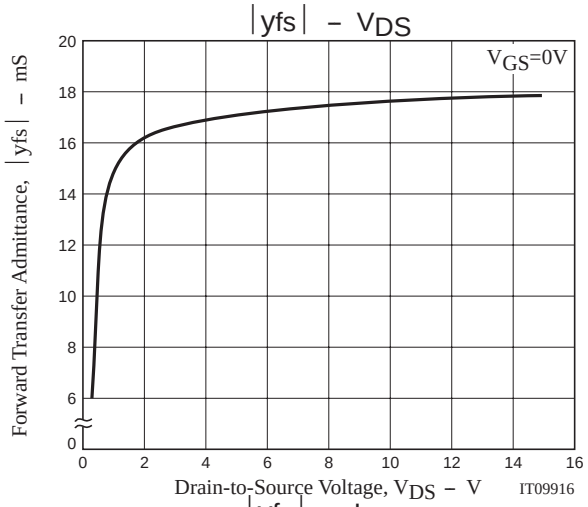
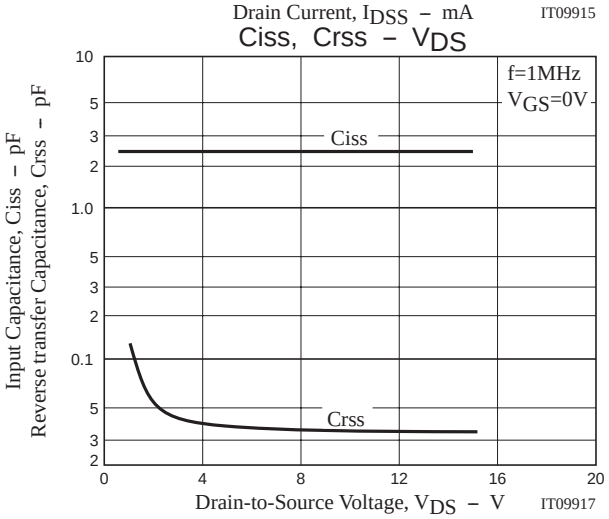
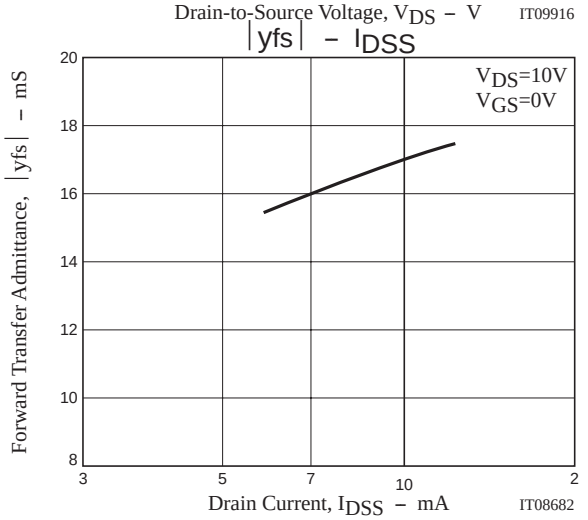
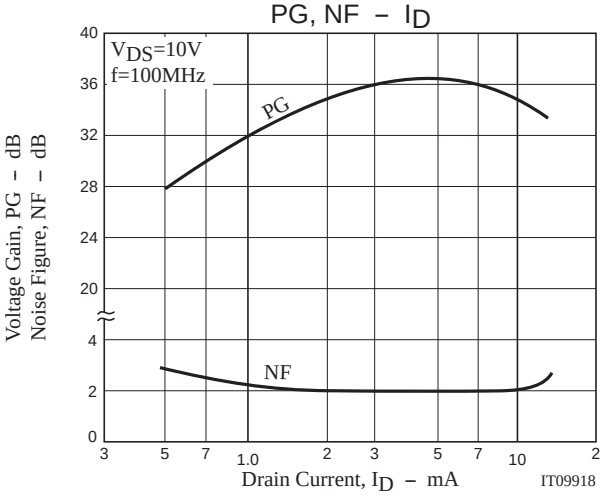
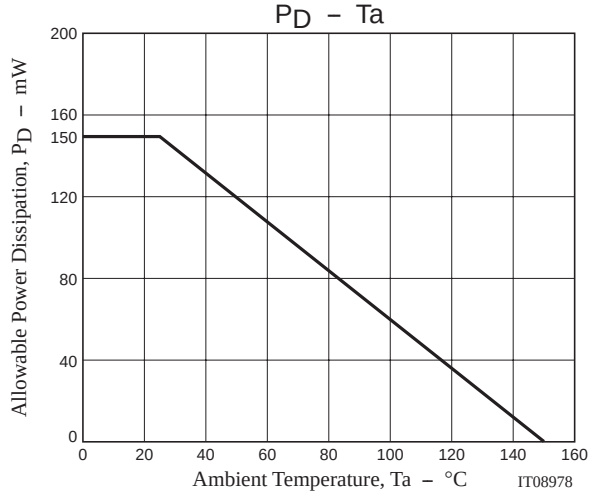

VGS(off) – IDSS
VDS=10V
Cutoff Voltage, VGS(off) – V
Drain Current, IDSS – mA
IT09915


|yfs| – VDS
VGS=0V
Forward Transfer Admittance, |yfs| – mS
Drain-to-Source Voltage, VDS – V
IT09916


Ciss, Crss – VDS
f=1MHz
VGS=0V
Ciss
Crss
Input Capacitance, Ciss – pF
Reverse transfer Capacitance, Crss – pF
Drain-to-Source Voltage, VDS – V
IT09917


|yfs| – IDSS
VDS=10V
VGS=0V
Forward Transfer Admittance, |yfs| – mS
Drain Current, IDSS – mA
IT08682


PG, NF – ID
VDS=10V
f=100MHz
PG
NF
Voltage Gain, PG – dB
Noise Figure, NF – dB
Drain Current, ID – mA
IT09918


PD – Ta
Allowable Power Dissipation, PD – mW
Ambient Temperature, Ta – °C
IT08978

2SK3737