



SANYO Semiconductors

DATA SHEET

2SK3856 — N-Channel Silicon MOSFET

FM Tuner, VHF-Band 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		200	mW
Channel Temperature	T _{ch}		150	°C
Storage Temperature	T _{stg}		-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} =0, V _{GS} =±5V			±10	nA
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =10V, V _{GS} =0	6.0*		12*	mA
Cutoff Voltage	V _{GS(off)}	V _{DS} =10V, I _D =100μA			-2.2	V
Forward Transfer Admittance	y _{fs}	V _{DS} =10V, V _{GS} =0, f=1kHz	11	16		mS
Input Capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0, f=1kHz		2.4		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =10V, V _{GS} =0, f=1kHz		0.035		pF
Power Gain	PG	V _{DS} =10V, V _{GS} =0, f=100MHz, See Specified Test Circuit.		35		dB
Noise Figure	NF	V _{DS} =10V, V _{GS} =0, f=100MHz, See Specified Test Circuit.		2.0		dB

* : The 2SK3856 is classified by I_{DSS} as follows (unit : mA) :

Rank	5	6
I _{DSS}	6 to 10	8 to 12

Marking : KD

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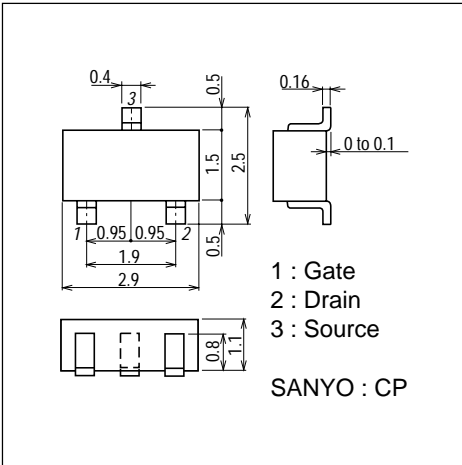
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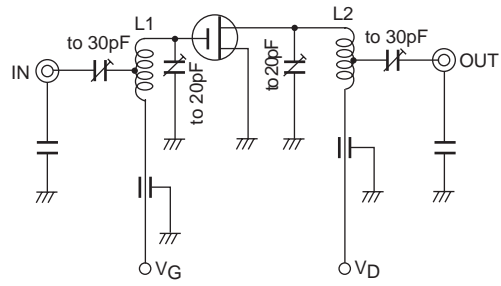
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Package Dimensions

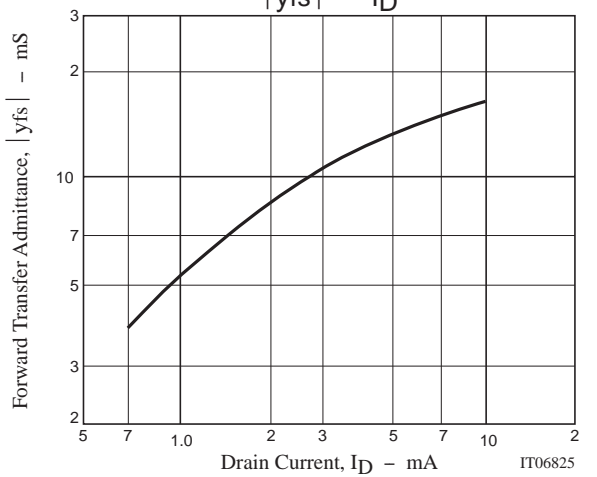
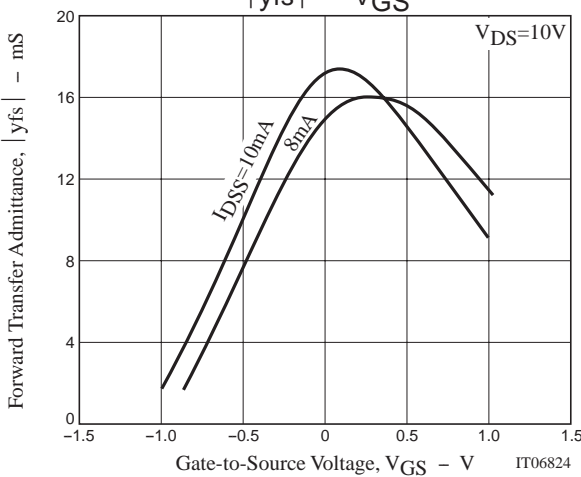
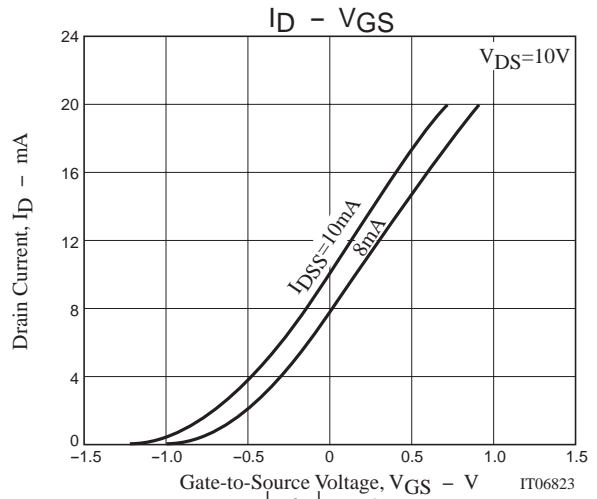
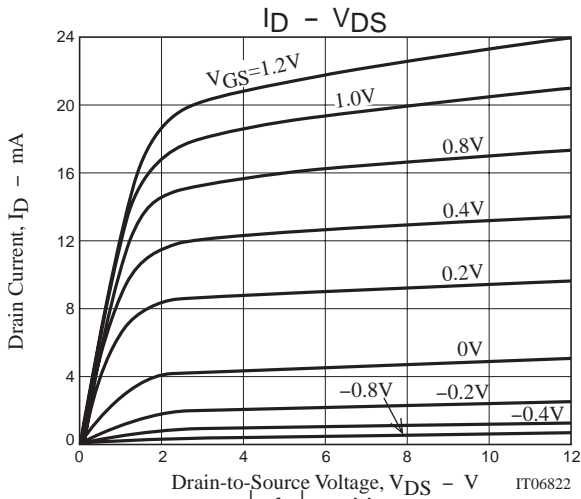
unit : mm
2024B



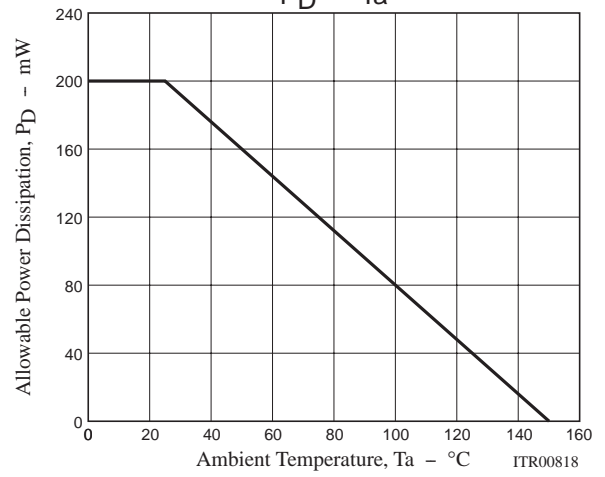
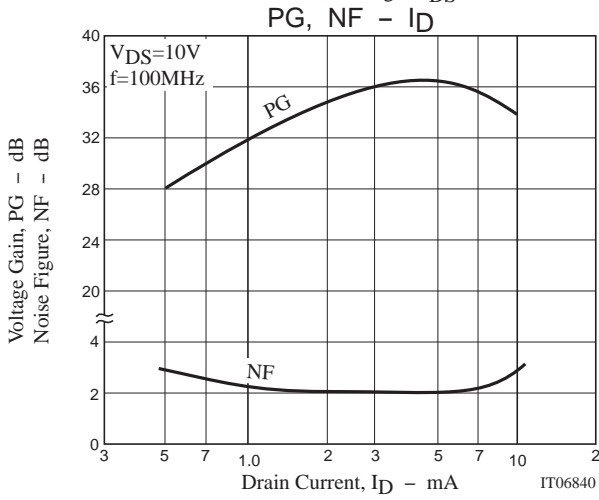
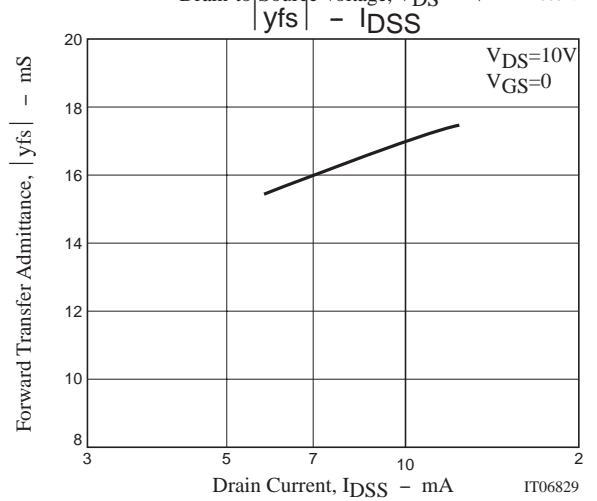
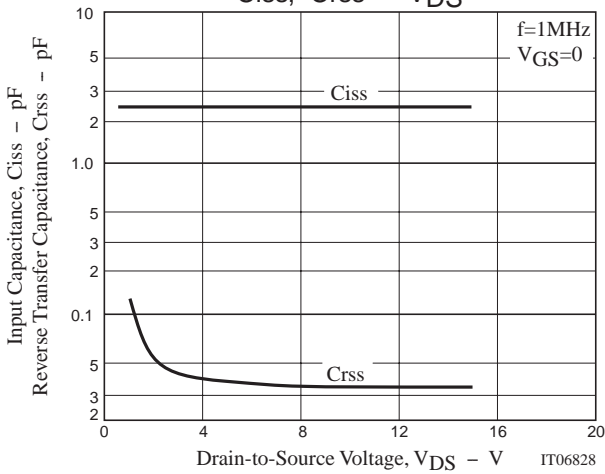
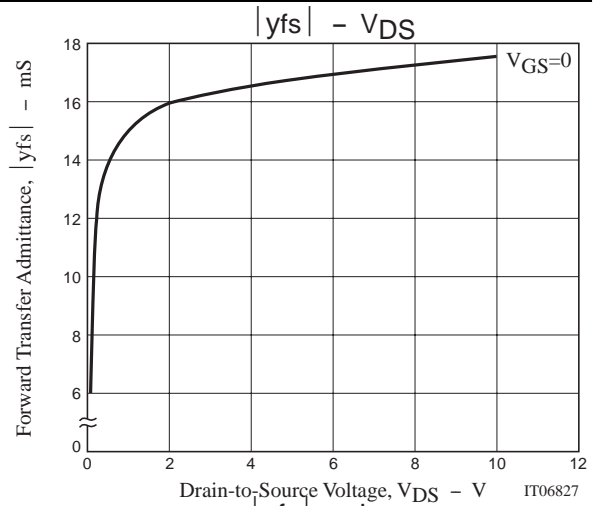
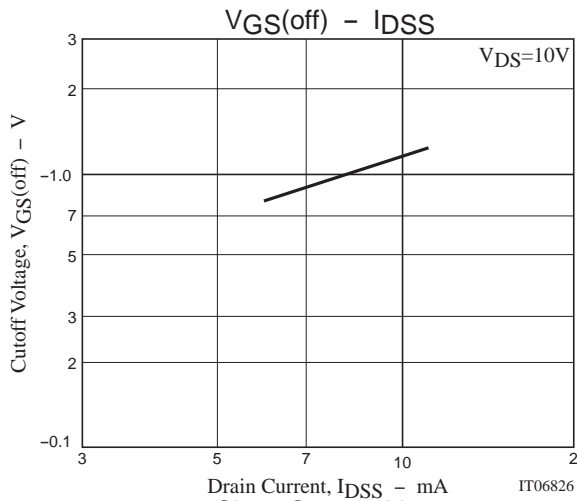
PG, NF Specified Test Circuit



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



2SK3856



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