



**THE DATASHEET OF
2SK3720-5-TB-E**





2SK3720 — 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} =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	y _{fs}	V _{DS} =10V, V _{GS} =0V, f=1kHz	11	16		mS
Input Capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0V, f=1MHz		2.4		pF
Reverse Transfer Capacitance	C _{rss}	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 2SK3720 is classified by I_{DSS} as follows (unit : mA).

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

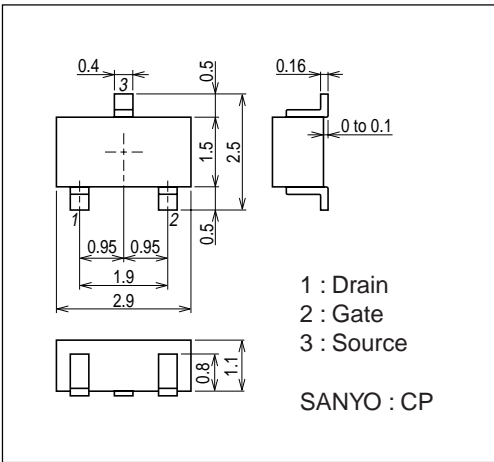
■ Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.

■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

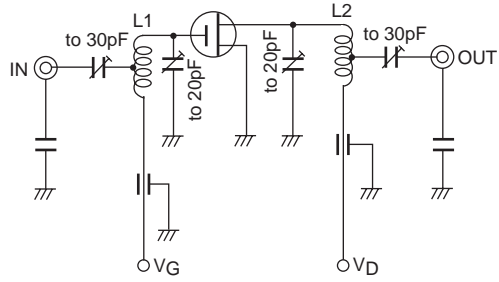
2SK3720

Package Dimensions

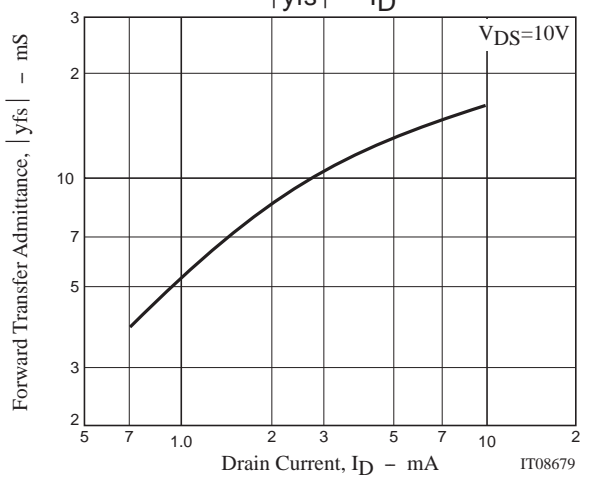
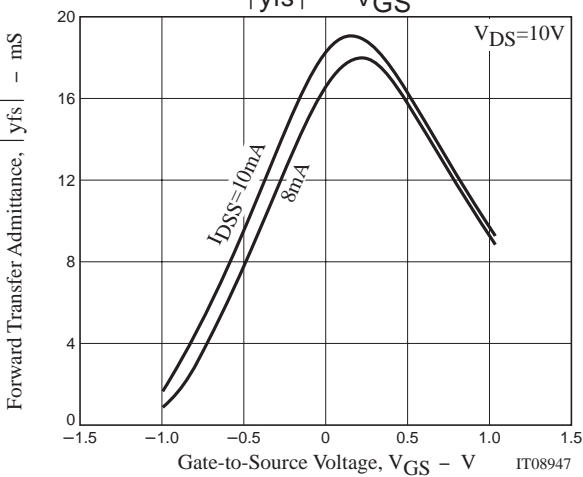
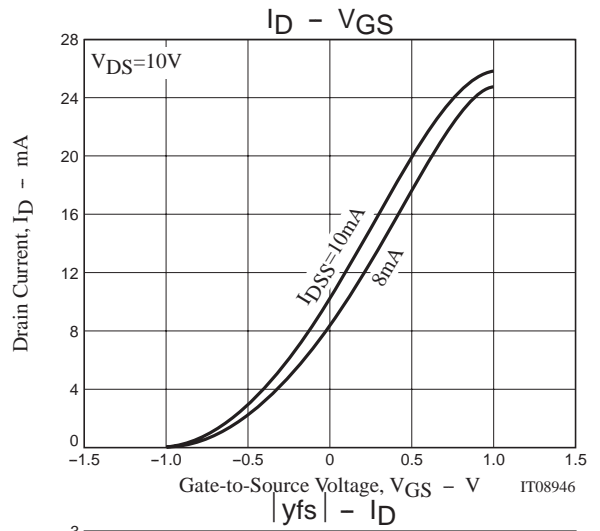
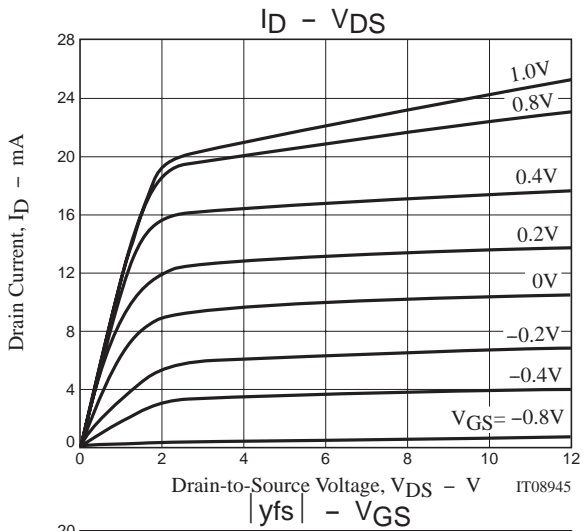
unit : mm
7013-012



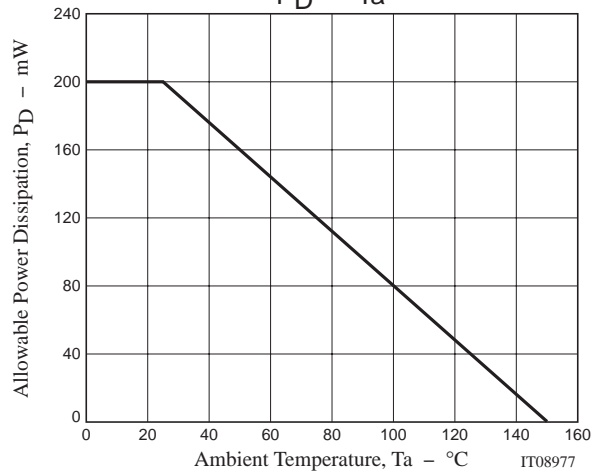
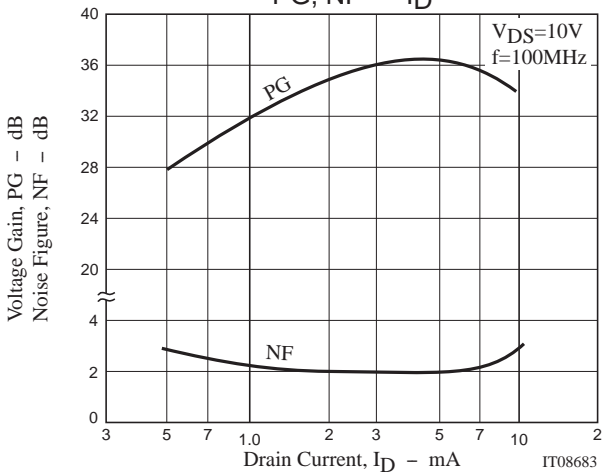
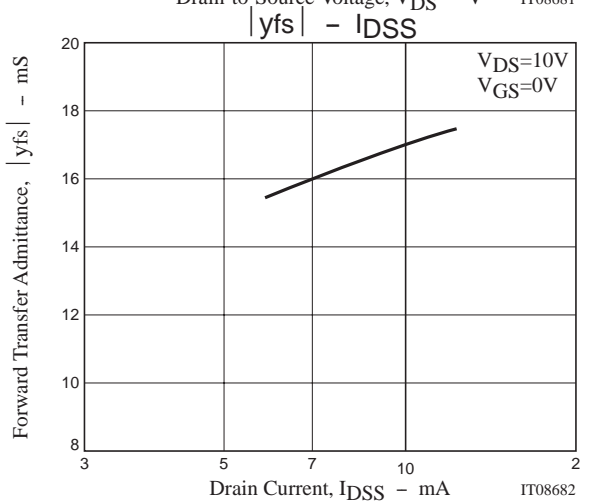
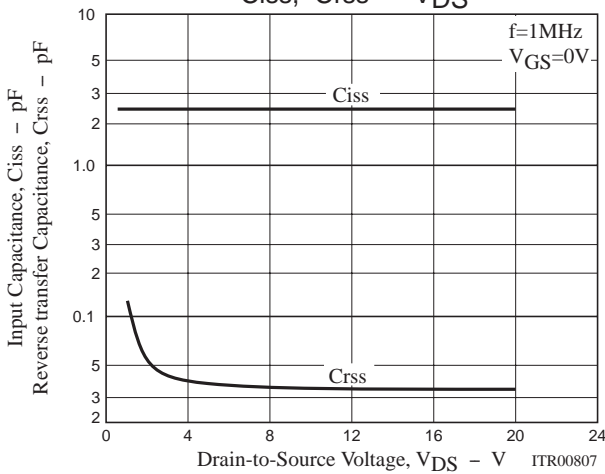
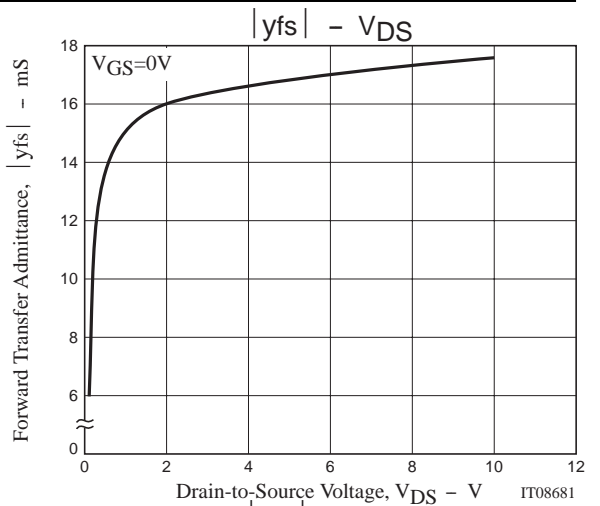
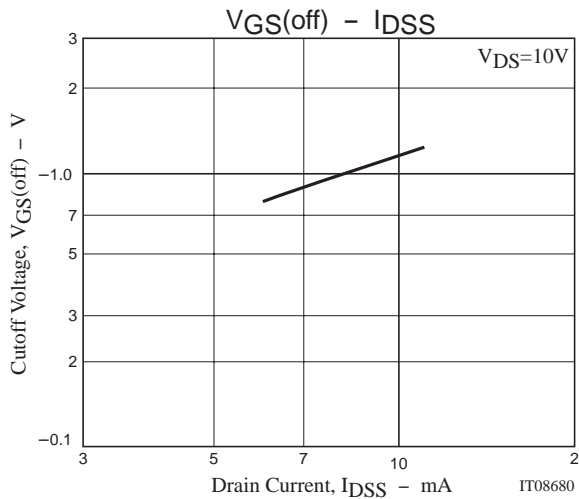
PG, NF Specified Test Circuit



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



2SK3720



- Specifications of any and all SANYO products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.
- SANYO Electric Co., Ltd. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.
- In the event that any or all SANYO products(including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.
- No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of SANYO Electric Co., Ltd.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the SANYO product that you intend to use.
- Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of June, 2005. Specifications and information herein are subject to change without notice.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [View 2SK3720-5-TB-E on WIN SOURCE](#)
- [SANYO Semiconductor \(U.S.A\) Corporation Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management