

SANYO

No.1792C

2SK544

N-Channel MOS Silicon FET

FM Tuner, VHF Amp Applications

Features

- Low noise: NF=1.8dB typ (f=100MHz)
- High power gain: PG=27dB typ (f=100MHz)
- Small reverse transfer capacitance: $c_{rss}=0.035\text{pF}$ ($V_{DS}=10\text{V}$, $f=1\text{MHz}$)

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

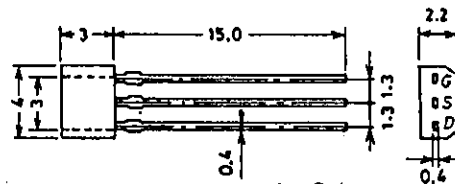
			unit
Drain to Source Voltage	V_{DS}	20	V
Gate to Source Voltage	V_{GS}	± 5	V
Drain Current	I_D	30	mA
Allowable Power Dissipation	P_D	300	mW
Channel Temperature	T_{ch}	125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

			min	typ	max	unit
Drain to Source Voltage	V_{DSX}	$V_{GS}=-4\text{V}, I_D=100\mu\text{A}$	20			V
Gate Cutoff Current	I_{GSS}	$V_{DS}=0\text{V}, V_{GS}=\pm 5\text{V}$			10	nA
Drain Current	I_{DSS}	$V_{DS}=10\text{V}, V_{GS}=0\text{V}$	1.2*		12*	mA
Gate to Source Cutoff Voltage	$V_{GS}(\text{off})$	$V_{DS}=10\text{V}, I_D=100\mu\text{A}$			-2.5	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10\text{V}, V_{GS}=0\text{V}, f=1\text{kHz}$		11		mS
Input Capacitance	c_{iss}	$V_{DS}=10\text{V}, V_{GS}=0\text{V}, f=1\text{kHz}$		2.4		pF
Reverse Transfer Capacitance	c_{rss}			0.035		pF
Power Gain	PG	$V_{DS}=10\text{V}, V_{GS}=0\text{V}, f=100\text{MHz}$		27		dB
Noise Figure	NF	See specified Test Circuit.	1.8	3.0		dB

*: The 2SK544 is classified by I_{DSS} as follows (unit: mA):

1.2	D	3.0	2.5	E	6.0	5.0	F	12
-----	---	-----	-----	---	-----	-----	---	----

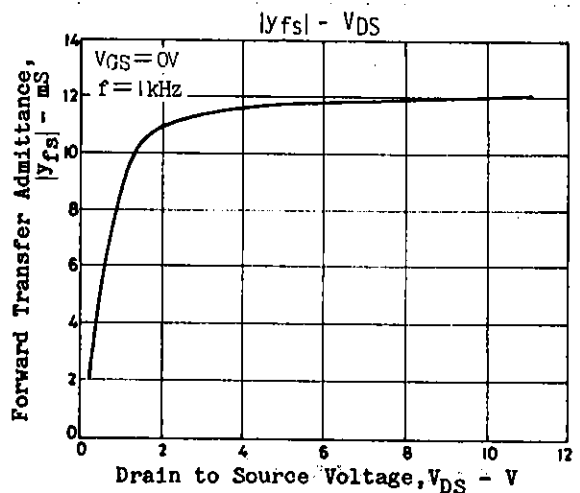
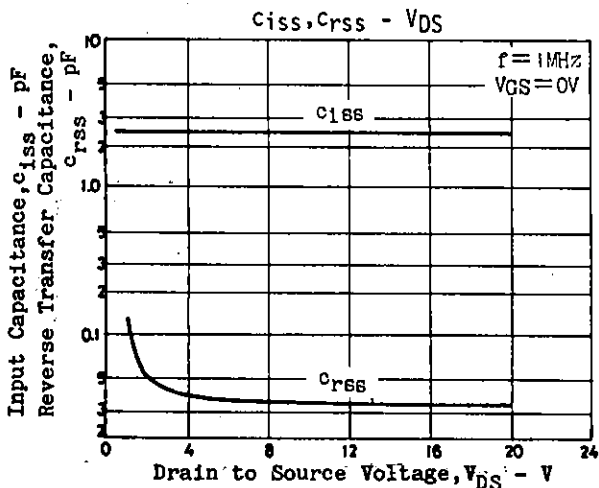
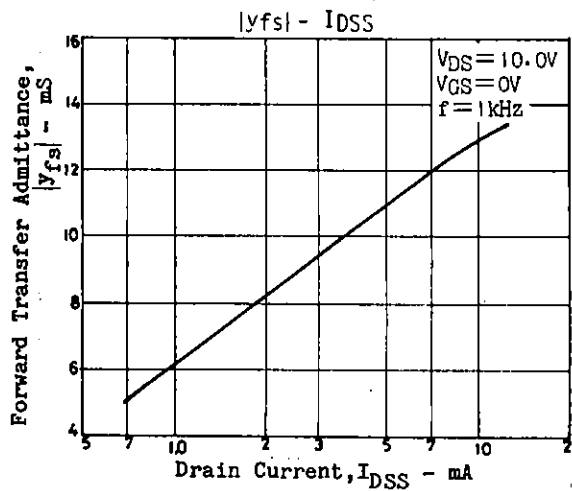
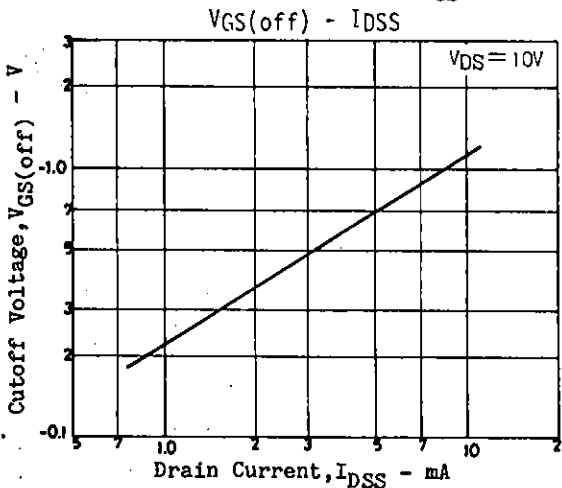
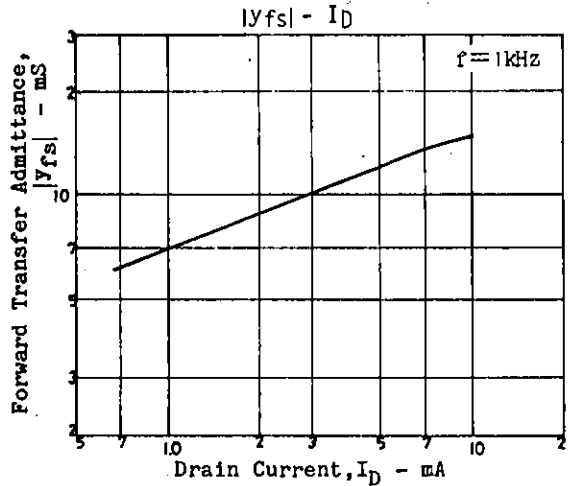
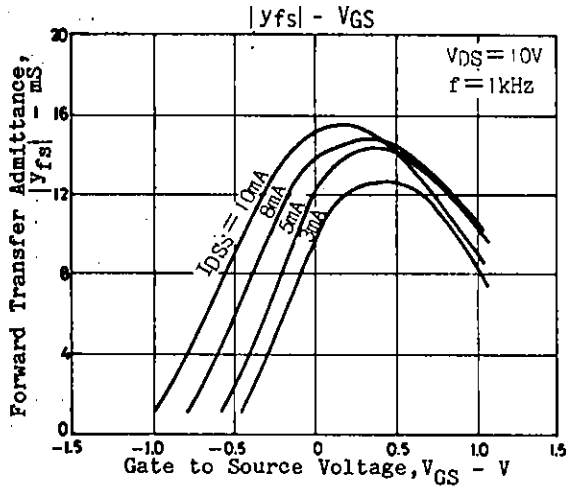
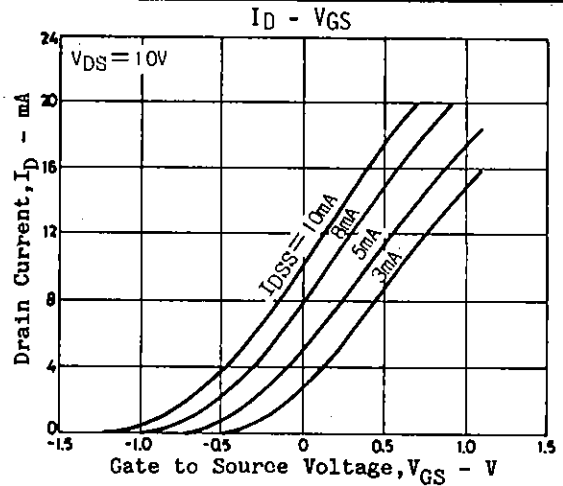
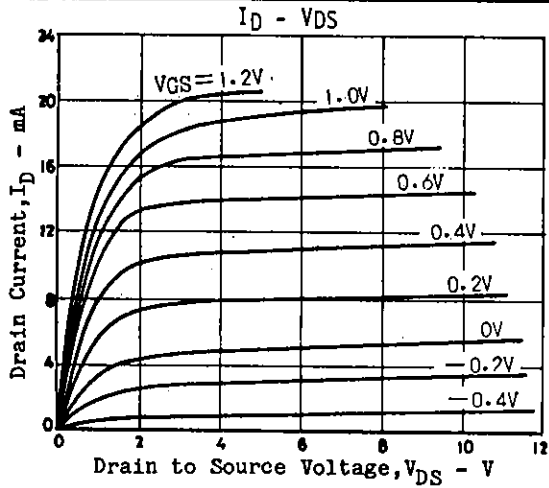
Package Dimensions 2040
 (unit: mm)


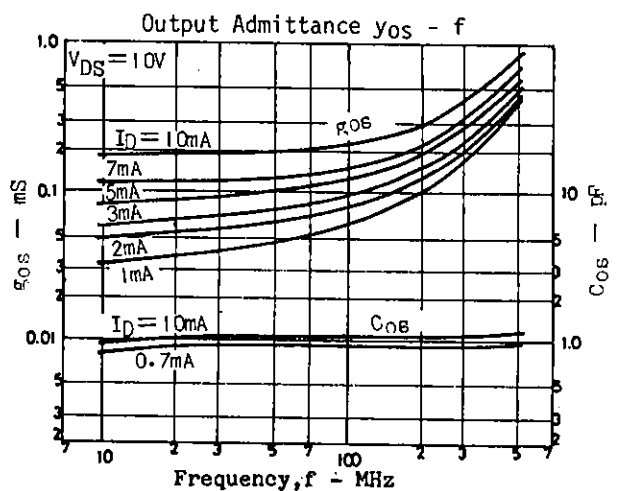
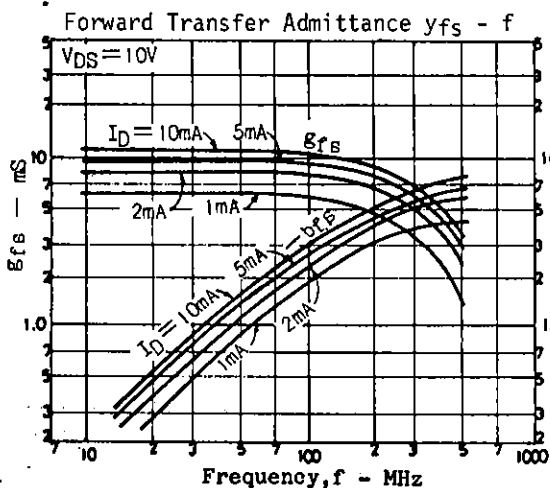
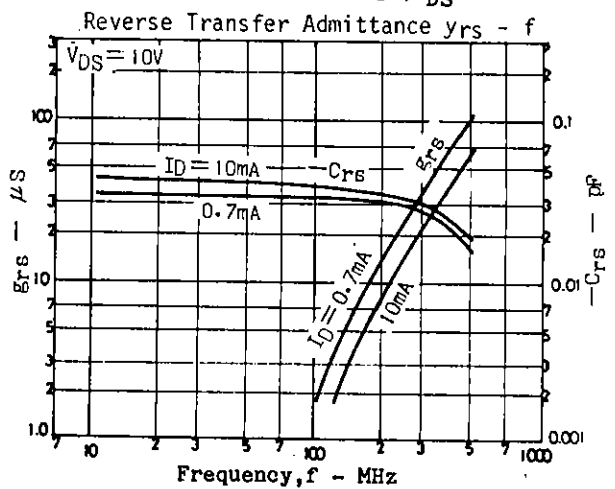
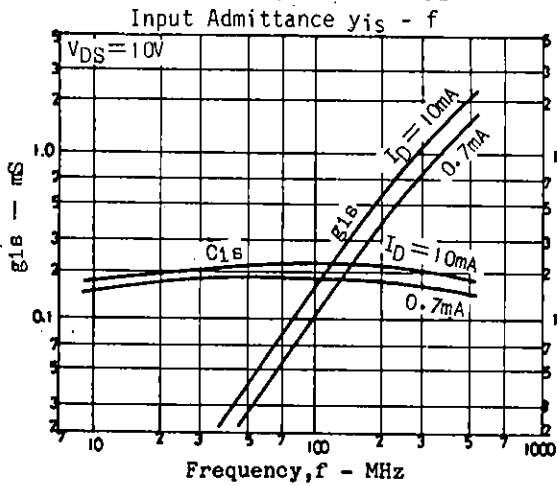
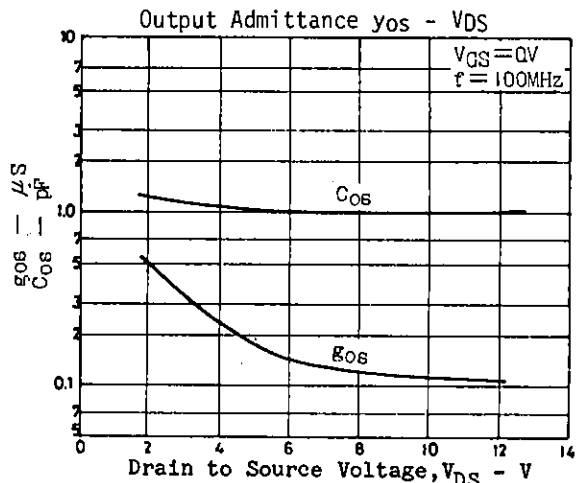
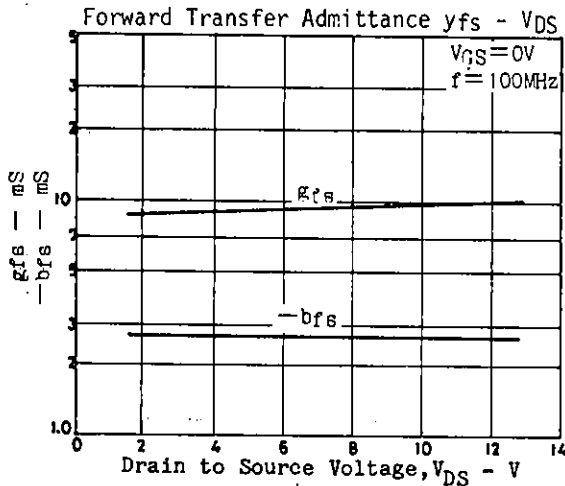
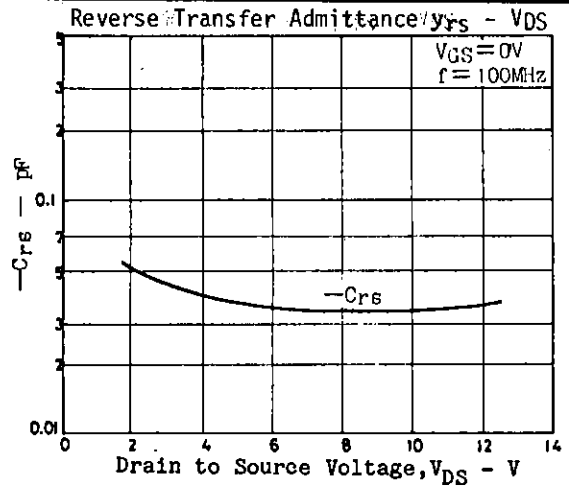
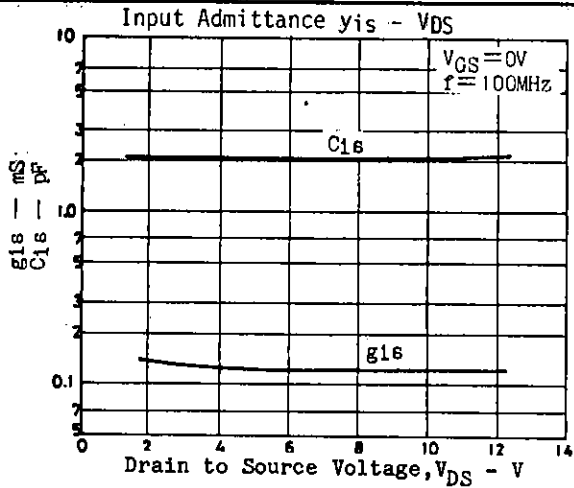
G: Gate
S: Source
D: Drain

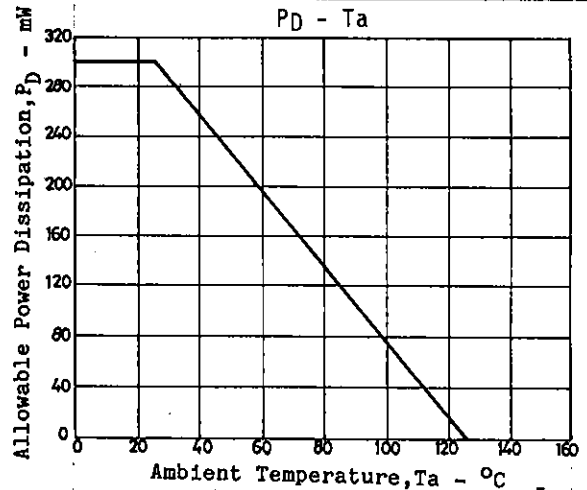
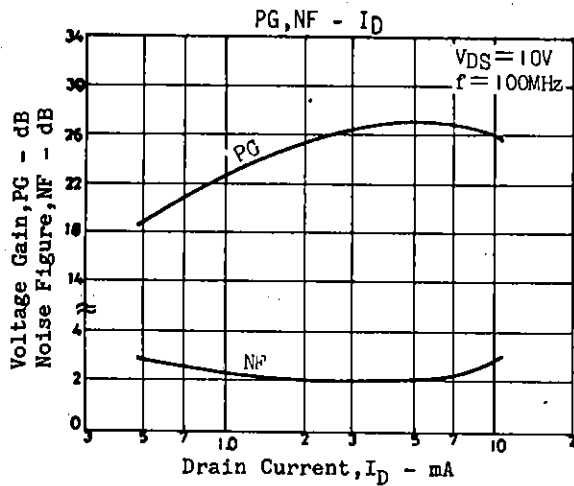
SANYO: SPA

SANYO Electric Co., Ltd. Semiconductor Business Headquarters
 TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

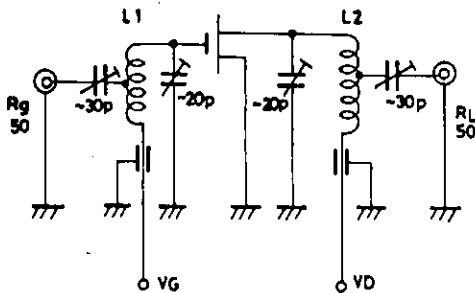
6037TA/2075KI, TS No. 1792-1/4







PG, NF Test Circuit



Unit(Capacitance : F)

- L1: 1.0mm ϕ plated wire 10mm ϕ 6T, tap: 3T from H side
L2: 1.0mm ϕ plated wire 10mm ϕ 7T, tap: 4T from H side

- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- 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.