

**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  $T_a=25^\circ\text{C}$** 

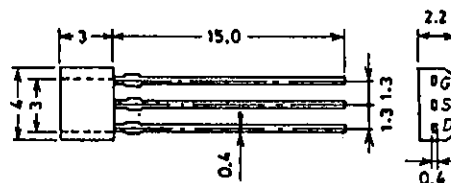
			unit
Drain to Source Voltage	$V_{DS}$	20	V
Gate to Source Voltage	$V_{GS}$	$\pm 5$	V
Drain Current	$I_D$	30	mA
Allowable Power Dissipation	$P_D$	300	mW
Channel Temperature	$T_{ch}$	125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

**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
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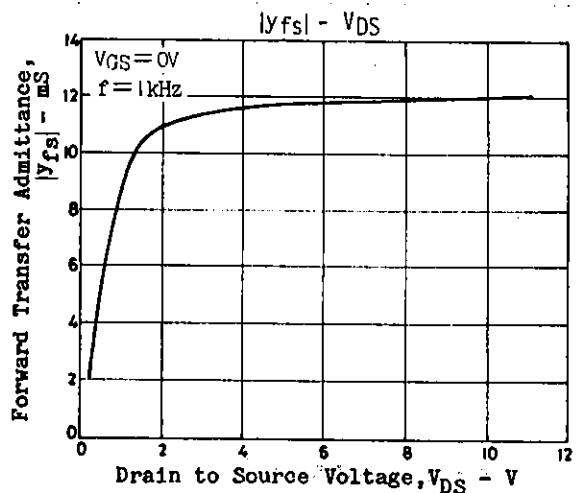
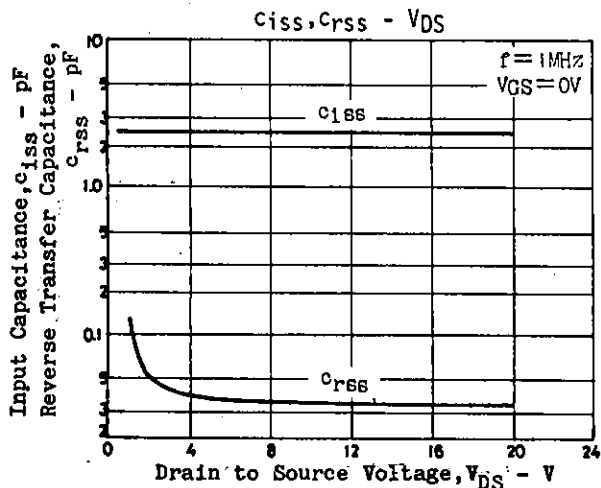
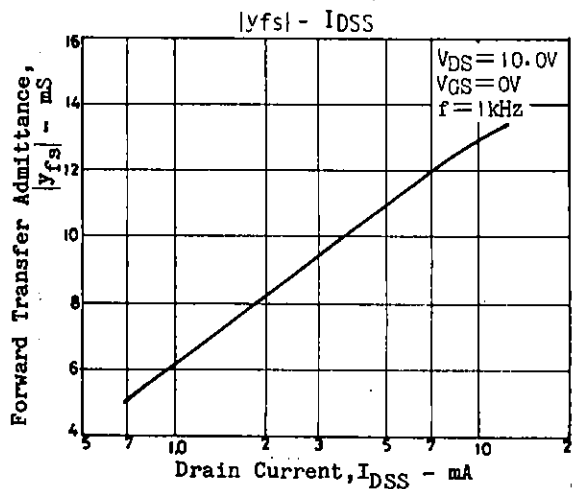
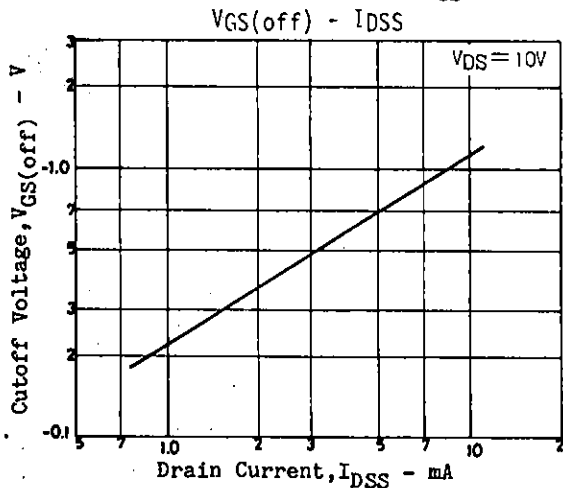
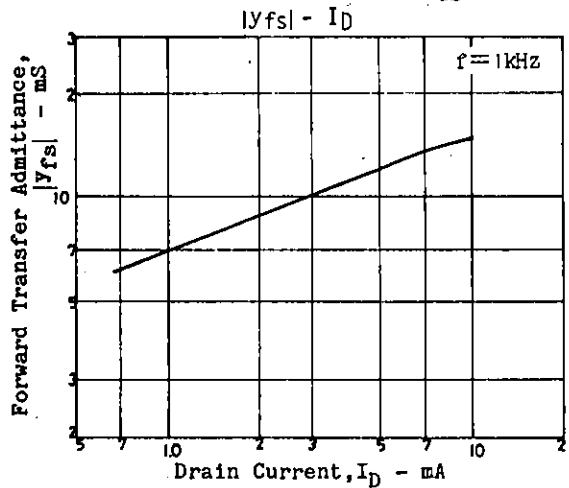
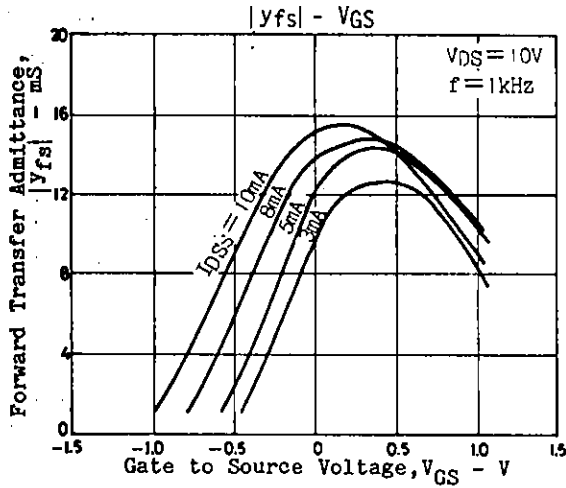
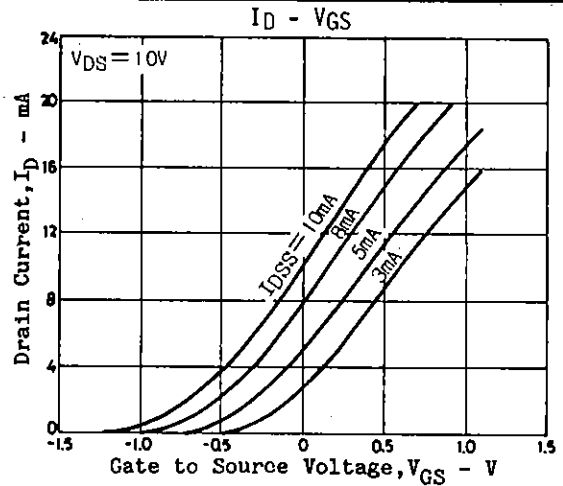
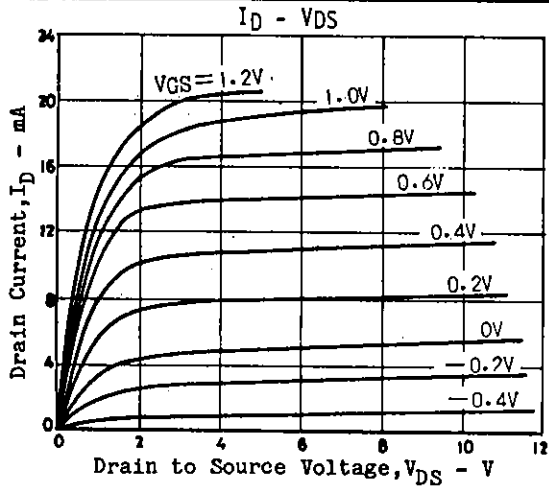
**Package Dimensions 2040**  
 (unit: mm)


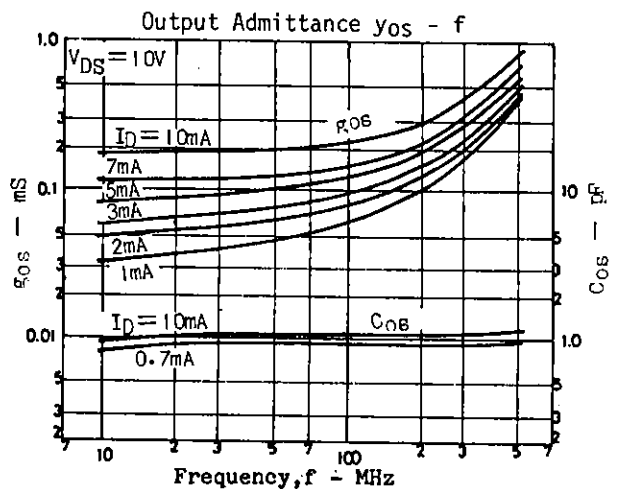
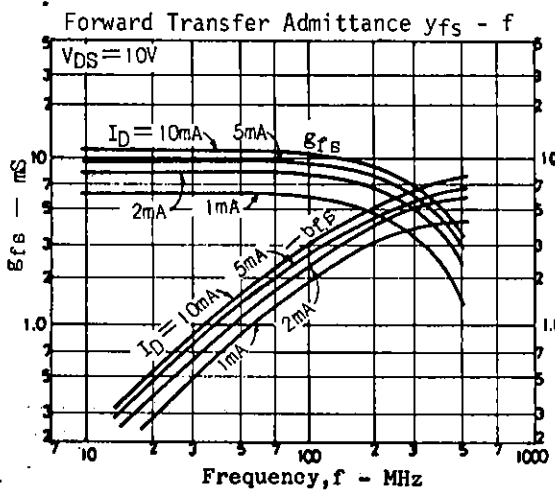
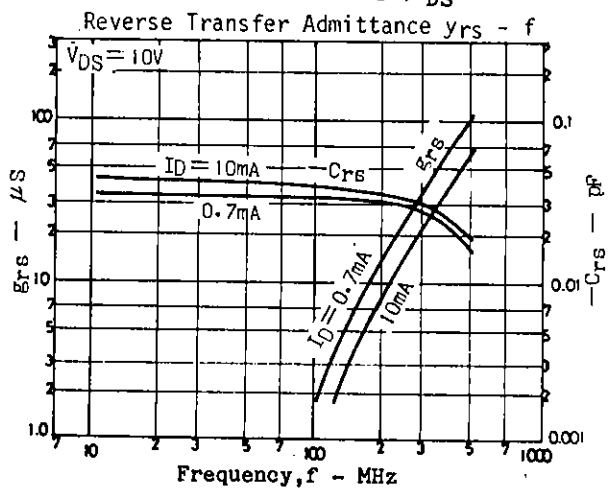
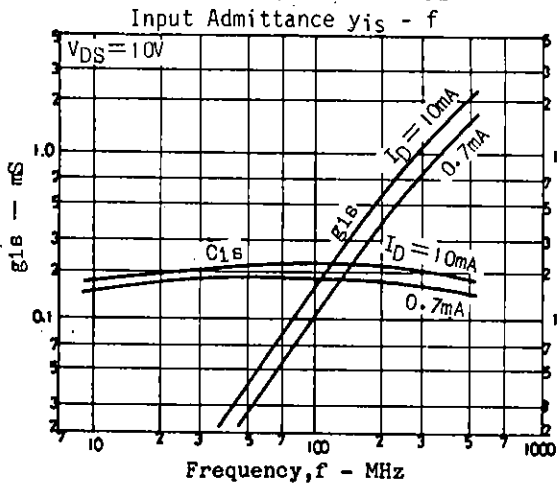
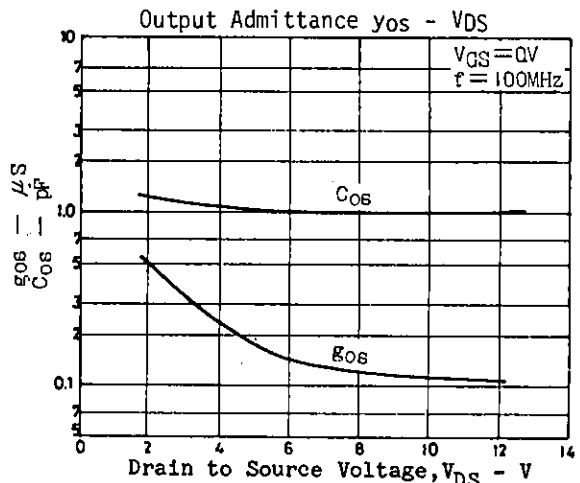
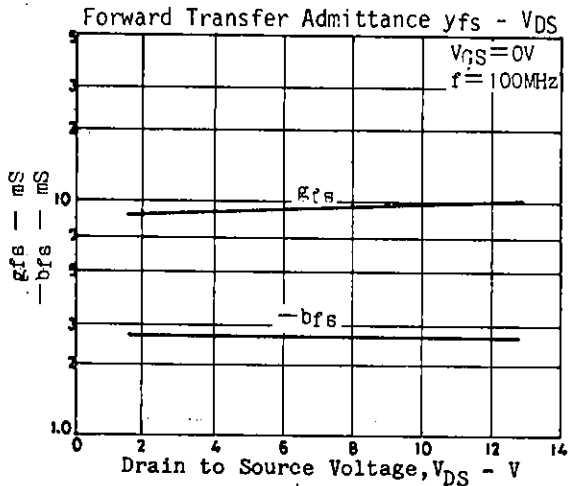
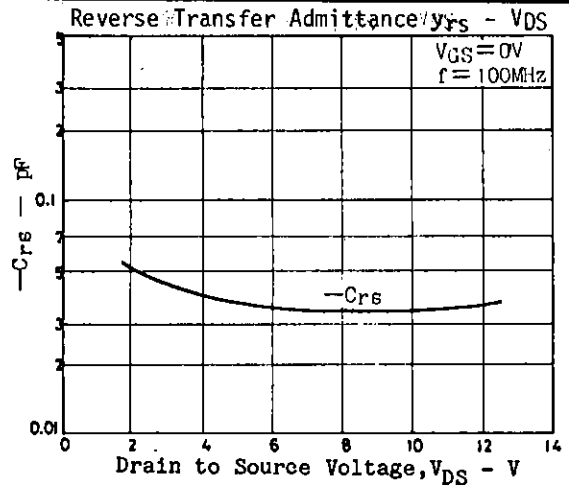
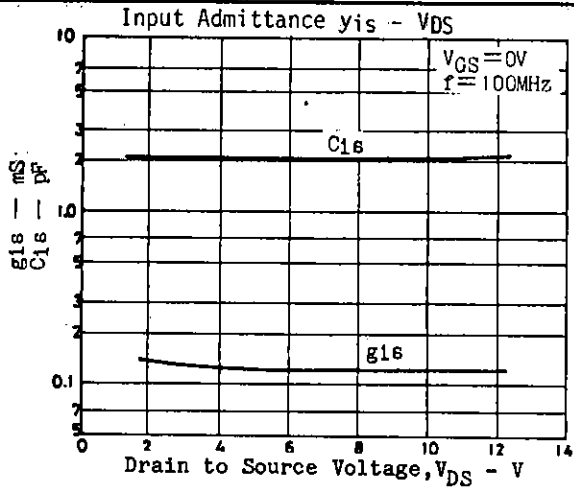
G: Gate  
S: Source  
D: Drain

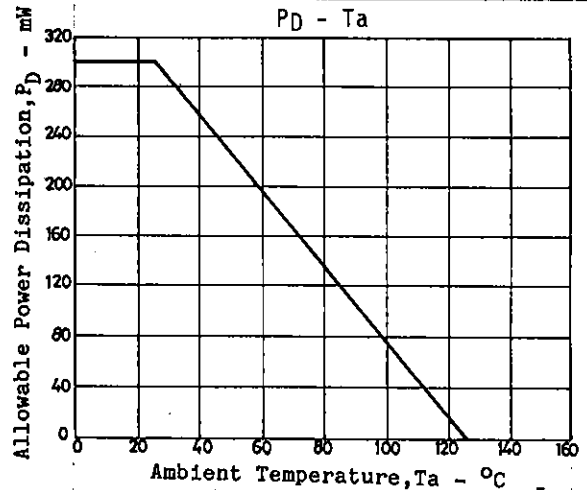
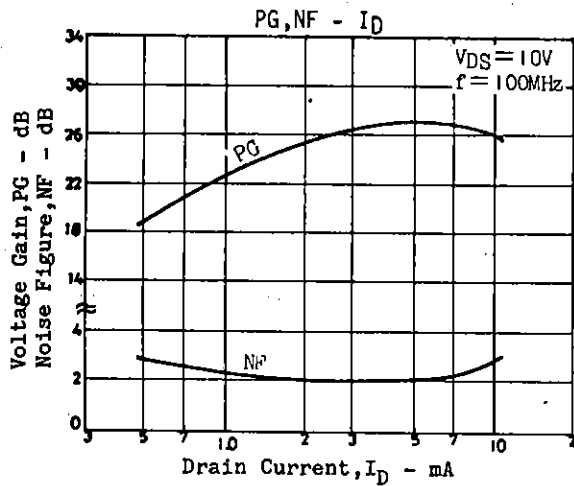
SANYO: SPA

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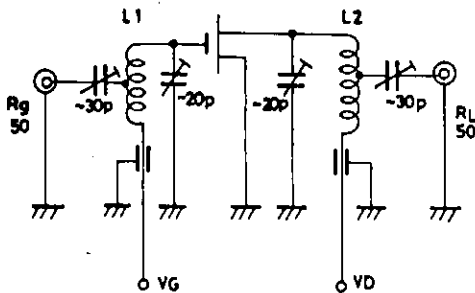
6037TA/2075KI, TS No. 1792-1/4







### PG, NF Test Circuit



Unit(Capacitance : F)

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

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