

SANYO**SANYO Semiconductors****DATA SHEET**

N-Channel Junction Silicon FET

**2SK1747 — HF Amplifiers Low Frequency
Amplifiers Analog Switches****Features**

- The 2SK1747 is formed with two chips, being equivalent to the 2SK937, placed in one package.
- Excellent in thermal equilibrium, pair capability and suitable for use in differential amp.
- Adoption of FBET process.

Absolute Maximum Ratings at Ta = 25°C

			unit
Drain to Source Voltage	V_{DSX}	40	V
Gate to Drain Voltage	V_{GDS}	-40	V
Gate Current	I_G	10	mA
Drain Current	I_D	75	mA
Allowable Power Dissipation	P_D	250	mW
Total Dissipation	P_T	400	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

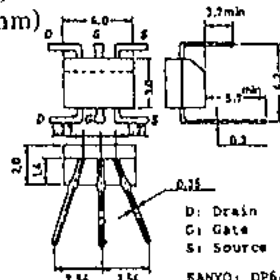
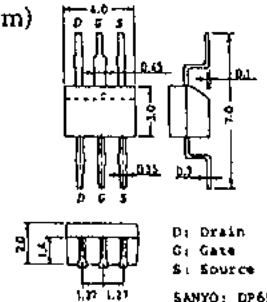
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
G-D Breakdown Voltage	$V_{(BR)GDS}$	$I_G = -10\mu A, V_{DS} = 0$	-40			V
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = -20V, V_{DS} = 0$			-1.0	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 100\mu A$	-2.0	-3.0	-5.0	V
Cutoff Voltage Ratio		$V_{DS} = 10V, I_D = 100\mu A$	0.85			
		$V_{GS(off)} \text{ (small/large)}$				
Drain Current	I_{DSS}^*	$V_{DS} = 10V, V_{GS} = 0$	40*		75*	mA
Drain Current Ratio		$V_{DS} = 10V, I_{DSS} \text{ (small/large)}$	0.85			
Forward Transfer Admittance	$ Y_{fs} \text{ (1)}$	$V_{DS} = 10V, I_D = 10mA, f = 1kHz$	10	15		mS
	$ Y_{fs} \text{ (2)}$	$V_{DS} = 10V, V_{GS} = 0, f = 1kHz$	22	30		mS
Forward Transfer Admittance Ratio		$V_{DS} = 10V, V_{GS} = 0, f = 1kHz$	0.85			
		$ Y_{fs} \text{ (small/large)}$				
Input Capacitance	C_{iss}	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		11		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		2.5		pF
Noise Figure	NF	$V_{DS} = 10V, R_g = 1k\Omega, I_D = 1mA, f = 1kHz$		1.5		dB
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = 10mA, V_{GS} = 0$		30		Ω

* : Pulse Test Pulse Width $\leq 2ms$ * : The 2SK1747 is classified by I_{DSS} as follows (unit : mA)

40	3	52	48	4	63	57	5	75
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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.

Package Dimensions 2027A
(unit : mm)**Package Dimensions 2028A**
(unit : mm)

Specifications and information herein are subject to change without notice.

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