

Linear Systems replaces discontinued Siliconix & National 2N5564

The 2N5564 are monolithic dual JFETS. The monolithic dual chip design reduces parasitics and gives better performance at very high frequencies while ensuring extremely tight matching. These devices are an excellent choice for use as wideband differential amplifiers in demanding test and measurement applications. The 2N5564 is a direct replacement for discontinued Siliconix and National 2N5564.

The hermetically sealed TO-71 is well suited for military and harsh environment applications. (See Packaging Information).

2N5564 Applications:

- Wideband Differential Amps
- High-Speed, Temp-Compensated Single-Ended Input Amps
- High-Speed Comparators
- Impedance Converters and vibrations detectors.

FEATURES	
Improved Direct Replacement for SILICONIX & NATIONAL 2N5564	
HIGH GAIN	7500 μ mho MINIMUM
LOW "ON" RESISTANCE	100 Ω MAXIMUM
ABSOLUTE MAXIMUM RATINGS ¹ @ 25°C (unless otherwise noted)	
Maximum Temperatures	
Storage Temperature	-65°C to +200°C
Operating Junction Temperature	-55°C to +125°C
Maximum Power Dissipation	
Device Dissipation (Each transistor)	325mW
Continuous Power Dissipation (Total)	650mW
Maximum Currents	
Gate Current	50mA
Maximum Voltages	
Gate to Drain	-40V
Gate to Source	-40V
Gate to Gate	\pm 80V

MATCHING CHARACTERISTICS @ 25°C (unless otherwise stated)

SYMBOL	CHARACTERISTIC	MIN	TYP	MAX	UNITS	CONDITIONS
$ V_{GS1} - V_{GS2} $	Differential Gate to Source Cutoff Voltage	--	--	5	mV	$V_{DG} = 15V, I_D = 2mA$
$\Delta V_{GS1} - V_{GS2} / \Delta T$	Differential Gate to Source Cutoff Voltage Change with Temperature	--	--	10	$\mu V/^\circ C$	$V_{DG} = 15V, I_D = 2mA$ $T_A = -55^\circ C$ to $+125^\circ C$
I_{DSS1} / I_{DSS2}	Gate to Source Saturation Current Ratio	0.95	--	1	%	$V_{DS} = 10V, V_{GS} = 0V$
$ I_{G1} - I_{G2} $	Differential Gate Current	--	--	20	nA	$V_{DG} = 10V, I_D = 5mA$ $T_A = +125^\circ C$
g_{fs1} / g_{fs2}	Forward Transconductance Ratio ²	0.95	--	1	%	$V_{DS} = 15V, I_D = 2mA, f = 1kHz$

ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise noted)

SYMBOL	CHARACTERISTICS	MIN.	TYP.	MAX.	UNITS	CONDITIONS
BV_{GSS}	Gate to Source Breakdown Voltage	-40	--	--	V	$I_G = -1\mu A, V_{DS} = 0V$
$V_{GS(off)}$	Gate to Source Cutoff Voltage	-0.5	--	-3		$V_{DS} = 15V, I_D = 1nA$
$V_{GS(F)}$	Gate to Source Forward Voltage	--	--	1		$I_G = 2mA, V_{DS} = 0V$
I_{DSS}	Gate to Source Saturation Current ³	5	--	30	mA	$V_{DS} = 15V, V_{GS} = 0V$
I_{GSS}	Gate Leakage Current ³	--	--	-200	nA	$V_{GS} = -20V, V_{DS} = 0V, 150^\circ C$
g_{fs}	Forward Transconductance	7500	--	12500	μS	$V_{DG} = 15V, I_D = 2mA, f = 1kHz$
		7000	--	--		$V_{DG} = 15V, I_D = 2mA, f = 100MHz$
g_{os}	Output Conductance	--	--	45		$V_{DG} = 15V, I_D = 2mA, f = 1kHz$
C_{ISS}	Input Capacitance	--	--	5	pF	$V_{DG} = 15V, I_D = 2mA, f = 100MHz$
C_{RSS}	Reverse Transfer Capacitance	--	--	12		
NF	Noise Figure	--	--	1	dB	$V_{DG} = 15V, I_D = 2mA, f = 10Hz, R_G = 1M\Omega$
e_n	Equivalent Input Noise Voltage	--	--	50	nV/ \sqrt{Hz}	$V_{DG} = 15V, I_D = 2mA, f = 10Hz$

Notes: 1. Absolute Maximum ratings are limiting values above which serviceability may be impaired 2. Pulse Test: PW \leq 300 μ s Duty Cycle \leq 3%
3. Assumes smaller value in numerator

TO-71 (Top View)

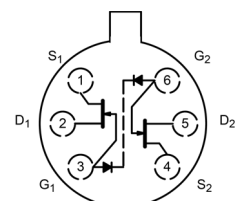


Available Packages:

2N5564 in TO-71
2N5564 available as bare die

Please contact Micross for full package and die dimensions:

Email: chipcomponents@micross.com
Web: www.micross.com/distribution.aspx



This is trial version

If you want get full version, please register it, thank you

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