

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

2N5564
2N5565
2N5566

MATCHED DUAL
N-CHANNEL JFET

JEDEC TO-71 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5564 series types are silicon monolithic dual N-Channel Junction Field Effect Transistors designed for wide band, low noise, amplifier input stages.

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

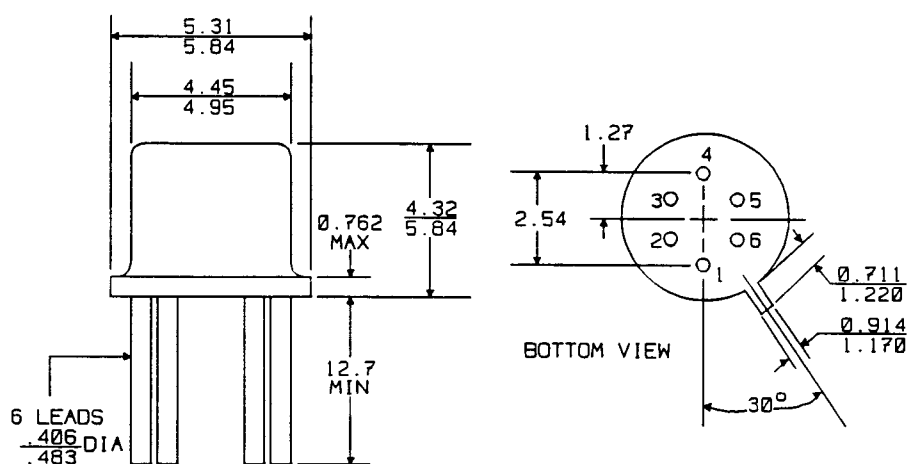
	SYMBOL		UNITS
Gate-Gate Voltage	V_{GG}	80	V
Drain-Gate Voltage	V_{DG}	40	V
Source-Gate Voltage	V_{SG}	40	V
Gate Current	I_G	50	mA
Power Dissipation (Each Transistor)	P_D	325	mW
Power Dissipation (Total Package)	P_D	650	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +200	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

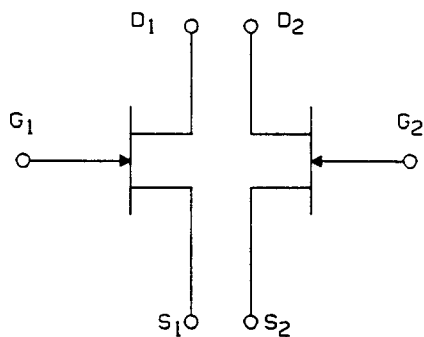
SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{GSS}	$V_{GS} = 20\text{V}$		100	pA
I_{GSS}	$V_{GS} = 20\text{V}, T_A = 150^\circ\text{C}$		200	nA
I_{DSS}	$V_{DS} = 15\text{V}$	5.0	30	mA
BV_{GSS}	$I_G = 1.0\mu\text{A}$	40		V
$V_{GS(OFF)}$	$V_{DS} = 15\text{V}, I_D = 1.0\text{nA}$	0.5	3.0	V
$V_{GS(f)}$	$V_{DS} = 0, I_G = 2.0\text{mA}$		1.0	V
r_{DS}	$I_D = 1.0\text{mA}$		100	Ω
g_{fs}	$V_{DG} = 15\text{V}, I_D = 2.0\text{mA}, f = 1\text{kHz}$	7500	12500	μmho
g_{fs}	$V_{DG} = 15\text{V}, I_D = 2.0\text{mA}, f = 100\text{MHz}$	7000		μmho
g_{os}	$V_{DG} = 15\text{V}, I_D = 2.0\text{mA}, f = 1\text{kHz}$		45	μmho
C_{rss}	$V_{DG} = 15\text{V}, I_D = 2.0\text{mA}, f = 1\text{MHz}$		3.0	pF
C_{iss}	$V_{DG} = 15\text{V}, I_D = 2.0\text{mA}, f = 1\text{MHz}$		12	pF
NF	$V_{DG} = 15\text{V}, I_D = 2.0\text{mA}, R_G = 1.0\text{M}\Omega, f = 10\text{Hz}$		1.0	dB
$\bar{e}_n$	$V_{DG} = 15\text{V}, I_D = 2.0\text{mA}, f = 10\text{Hz}$		50	$\text{nV}/\sqrt{\text{Hz}}$

ELECTRICAL CHARACTERISTICS (continued)

SYMBOL	TEST CONDITIONS	2N5564		2N5565		2N5566		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I_{DSS1}/I_{DSS2}	$V_{DS} = 15V, V_{GS} = 0$	0.95	1.0	0.95	1.0	0.95	1.0	
$ V_{GS1} - V_{GS2} $	$V_{DS} = 15V, I_D = 2.0mA$		5.0		10		20	mV
$\Delta V_{GS1} - V_{GS2} /\Delta T$	$V_{DS} = 15V, I_D = 2.0mA, T_A = -55 \text{ TO } 25^\circ C$		10		25		50	$\mu V/^\circ C$
$\Delta V_{GS1} - V_{GS2} /\Delta T$	$V_{DS} = 15V, I_D = 2.0mA, T_A = 25 \text{ TO } 125^\circ C$		10		25		50	$\mu V/^\circ C$
g_{fs1}/g_{fs2}	$V_{DS} = 15V, I_D = 2.0mA, f = 1.0kHz$	0.95	1.0	0.90	1.0	0.90	1.0	



All Dimensions in mm.



LEAD CODE:

- 1) SOURCE 1
- 2) DRAIN 1
- 3) GATE 1
- 4) SOURCE 2
- 5) DRAIN 2
- 6) GATE 2