

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N5949
2N5950
2N5951
2N5952
2N5953

N-CHANNEL FET

T0-92-18R CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5949 Series types are Silicon N Channel Junction FETs designed for switching, RF amplifier and mixer applications where low capacitance is desired.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL	UNIT
Gate-Source Voltage	V _{GS}	30 V
Drain-Gate Voltage	V _{DG}	30 V
Gate Current	I _G	10 mA
Power Dissipation	P _D	360 mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 TO +150 °C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N5949		2N5950		2N5951		2N5952		2N5953		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
I _{GSS}	V _{GS} =15V		1.0		1.0		1.0		1.0		1.0	nA
I _{GSS}	V _{GS} =15V, T _A =100°C		200		200		200		200		200	nA
I _{DSS}	V _{DS} =15V	12	18	10	15	7.0	13	4.0	8.0	2.5	5.0	mA
BV _{GSS}	I _G =1.0μA	30		30		30		30		30		V
V _{GS}	V _{DS} =15V, I _D =1.2mA	2.25	6.0	-	-	-	-	-	-	-	-	V
V _{GS}	V _{DS} =15V, I _D =1.0mA	-	-	1.8	5.0	-	-	-	-	-	-	V
V _{GS}	V _{DS} =15V, I _D =0.7mA	-	-	-	-	1.3	4.5	-	-	-	-	V
V _{GS}	V _{DS} =15V, I _D =0.4mA	-	-	-	-	-	-	0.75	3.0	-	-	V
V _{GS}	V _{DS} =15V, I _D =0.25mA	-	-	-	-	-	-	-	-	0.5	2.5	V
V _{GS} (OFF)	V _{DS} =15V, I _D =100nA	3.0	7.0	2.5	6.0	2.0	5.0	1.3	3.5	0.8	3.0	V
Y _{fs}	V _{DS} =15V, V _{GS} =0, f=1.0kHz	3.5	7.5	3.5	7.5	3.5	6.5	2.0	6.5	2.0	6.5	mmho
Y _{os}	V _{DS} =15V, V _{GS} =0, f=1.0kHz		75		75		75		50		50	μmho
C _{iss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz		6.0		6.0		6.0		6.0		6.0	pF
C _{rss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz		2.0		2.0		2.0		2.0		2.0	pF
r _{ds} (ON)	V _{GS} =0, I _D =0, f=1.0kHz		200		210		250		300		375	Ω
g _{is}	V _{DS} =15V, V _{GS} =0, f=100MHz		250		250		250		250		250	μmho
g _{fs}	V _{DS} =15V, V _{GS} =0, f=100MHz	3.0	7.5	3.0	7.5	3.0	6.5	1.0	6.5	1.0	6.5	mmho
g _{os}	V _{DS} =15V, V _{GS} =0, f=100MHz		150		125		100		75		50	μmho
NF	V _{DS} =15V, V _{GS} =0, f=100MHz, R _G =1.0kΩ		5.0		5.0		5.0		5.0		5.0	dB
NF	V _{DS} =15V, V _{GS} =0, f=1.0kHz, R _G =1.0MΩ		2.0		2.0		2.0		2.0		2.0	dB
V _N	V _{DS} =15V, V _{GS} =0, f=1.0kHz		100		100		100		100		100	nV/√Hz