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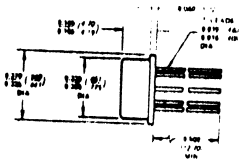
2N5911
2N5912

DIFFERENTIAL PAIRS N-CHANNEL SILICON JUNCTION FIELD-EFFECT TRANSISTORS

*ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise noted)

Gate-to-Gate Voltage	±80 V
Gate-Drain or Gate-Source Voltage	-25 V
Gate Current	50 mA
Device Dissipation (Each Side), (Derate 3 mW/°C)	367 mW
Total Device Dissipation, (Derate 4 mW/°C)	500 mW
Storage Temperature Range	-65 to +150°C

*ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)



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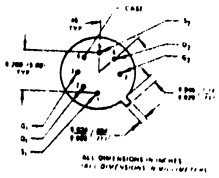

Characteristic		Test Conditions		Min	Max	Unit
I_{GSS}	Gate Reverse Current	V_{GS} = -15 V, V_{DS} = 0	25°C		-100	pA
			150°C		-250	nA
BV_{GSS}	Gate-Source Breakdown Voltage	I_G = -1 μA, V_{DS} = 0		-25		V
V_P	Gate-Source Pinch-Off Voltage	V_{DS} = 10 V, I_D = 1 nA		-1	-5	V
I_{DSS}	Drain Current at Zero Gate Voltage (Pulsewidth 300 μs, duty cycle ≤ 3%)	V_{DS} = 10 V, V_{GS} = 0		7	[illegible]	mA
g_{fs}	Common-Source Forward Transconductance	V_{DS} = 10 V, I_D = 5 mA, f = 1 kHz		5000	10,000	μmho
g_{oss}	Common-Source Output Conductance				200	μmho
C_{rss}	Common-Source Reverse Transfer Capacitance	V_{DG} = 10 V, I_D = 5 mA	f = 1 MHz		1.2	pF
C_{iss}	Common-Source Input Capacitance				5	pF
$\bar{e}_n$	Equivalent Short Circuit Input Spot Noise Voltage		f = 10 kHz		20	$\frac{nV}{\sqrt{Hz}}$
NF	Spot Noise Figure		R_G = 100K, f = 10 kHz		1	dB
I_G	Gate Current		25°C		-100	pA
			125°C		-0.1	nA
V_{GS}	Gate-Source Voltage			-0.3	-1	V
g_{fs}	Common-Source Forward Transconductance		f = 100 MHz	5000	10,000	μmho
g_{oss}	Common-Source Output Conductance				150	μmho

*MATCHING CHARACTERISTICS

Characteristic		Test Conditions		2N5911 Min	2N5911 Max	2N5912 Min	2N5912 Max	Unit
$\frac{I_{DSS1}}{I_{DSS2}}$	Drain Current Ratio at Zero Gate Voltage	V_{DS} = 10 V, V_{GS} = 0 (Pulsewidth 300 μs, duty cycle ≤ 3%)		0.95	1	0.95	1	
$\lvert I_{G1} - I_{G2} \rvert$	Differential Gate Current	V_{DG} = 10 V, I_D = 5 mA	125°C		20		20	nA
$\frac{g_{fs1}}{g_{fs2}}$	Transconductance Ratio		f = 1 kHz	0.95	1	0.95	1	--
$\lvert g_{oss1} - g_{oss2} \rvert$	Differential Output Conductance		f = 1 kHz		20		20	μmho
$\lvert V_{GS1} - V_{GS2} \rvert$	Differential Gate-Source Voltage				10		[illegible]	mV
$\frac{\Delta \lvert V_{GS1} - V_{GS2} \rvert}{\Delta T}$	Gate-Source Voltage Differential Drift (Measured at end points, T_A and T_B)		T_A = -55°C, T_B = 125°C		20		[illegible]	μV/°C
			T_A = -55°C, T_B = 25°C		20		[illegible]	μV/°C

NZD

*JEDEC registered data.
These devices are manufactured to meet or exceed the requirements of MIL-S-19500.

Quality Semi-Conductors