2N5196, 2N5197, 2N5198, 2N5199

N-Channel Dual Silicon Junction Field-Effect Transistor

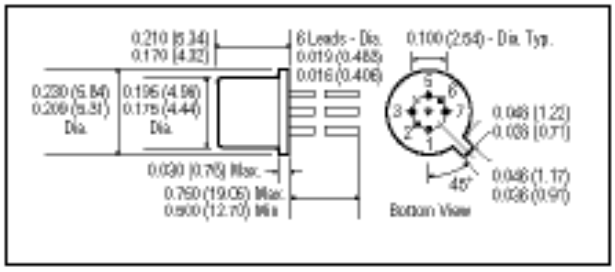
- **Differencial Inputs**

Absolute maximum ratings at $T_A = 25^oC$

Reverse Gate Source & Gate Drain Voltage	-50V
Continuous Forward Gate Current	50 mA
Continuous Device Power Dissipation	300 mW
Power Derating	2.6 mW/^{o}C
Storage Temperature Range	-65^{o}C to +150^{o}C

At 25°C free air temperature Static Electrical Characteristics		**2N5196, 2N5197, 2N5198, 2N5199**				**Process NJ16**	
		Min	**Typ**	**Max**	**Unit**	**Test Conditions**	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	-50			V	I_G = -1 uA, V_{DS} = 0 V	
Gate Reverse Current	I_{GSS}			-25	pA	V_{GS} = -10 V, V_{DS} = 0 V	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	-0.7		-4	V	V_{DS} = 10 V, V_{GS} = 0 V	
Drain Saturation Current (pulsed)	I_{DSS}	0.7		7	mA	V_{DS} = 10 V, V_{GS} = 0 V	
Dynamic Electrical Characteristics							
Common-Source Forward Transconductance	gfs	1		4	mS	VDS = 10 V, ID = 5 mA	f = 1 kHz
Common-Source Input Capacitance	C_{iss}			6	pF	V_{DS} = -10 V, V_{GS} = 1 V	f = 1 MHz
Common-Source Reverse Transfer Capacitance	C_{rss}			2	pF	V_{DS} = 10 V, I_D = 5 mA	f = 1 MHz
Equivalent Short Circuit Input Noise Voltage	~e_N		20		nV/√Hz	V_{DS} = 10 V, I_D = 5 mA	f = 1 kHz

		2N5196		2N5197		2N5198		2N5199		Units	Test Conditions
		Min	Max	Min	Max	Min	Max	Min	Max		
Differencial Gate-Source Voltage	(V_{GS1}-V_{GS2})		5		5		10		15	mV	V_{DS} = 10 V, I_D = -10 mA
Differencial Gate Source Voltage with Temperature	$\frac{\Delta\lvert VGS1-VGS2\rvert}{\Delta T}$		5		10		20		40	µV/°C	VDG = 10 V, ID = 30 µA



TO-71 Package
Dimensions in inches (mm)
Pin Configuration
1 Source, 2 Drain, 3 Gate,
5 Source, 6 Drain, 7 Case

Surface Mount Version:
SMP5196, SMP5197,
SMP5198, SMP5199

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