MOS FIELD-EFFECT TRANSISTOR

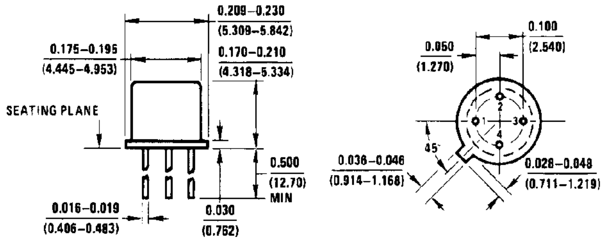
DESCRIPTION:

The **ASI 3N211** is an N-Channel Dual-Gate Depletion Type Transistor With Monolithic Gate Protection Diodes, Used in VHF Low Noise Amplifier Applications.

MAXIMUM RATINGS

I	50 mA
V	25 V
P_{DISS}	360 mW @ T_A = 25 °C
P_{DISS}	1.2 W @ T_C = 25 °C
T_J	-65 °C to +175 °C
T_{STG}	-65 °C to +175 °C

PACKAGE STYLE TO-72



1 = DRAIN   2 = GATE #2   3 = GATE #1
4 = CASE,SOURCE,SUBSTRATE

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{(BR)DSX}$	I_D = 10 µA V_{G1S} = -4.0 V V_{G2S} = -4.0 V	25			**V**
$V_{(BR)G1}$	I_{G1} = ± 10 mA V_{G2S} = 0 V V_{DS} = 0 V	±6.0			**V**
$V_{(BR)G2}$	I_{G2} = ± 10 mA V_{G1S} = 0 V V_{DS} = 0 V	±6.0			**V**
I_{G1SS}	V_{G1S} = ±5.0 V V_{G2S} = 0 V V_{DS} = 0 V T_A = 150 °C			±10 10	**µA**
I_{G2SS}	V_{G2S} = ±5.0 V V_{G1S} = 0 V V_{DS} = 0 V T_A = 150 °C			±10 10	**µA**
I_{DS}	V_{DS} = 15 V V_{G1S} = 0 V V_{G2S} = 4.0 V	6.0	10	40	**mA**
$V_{G1S(OFF)}$	V_{DS} = 15 V V_{G2S} = 4.0 V I_D = 20 µA	-0.5		-5.5	**V**
$V_{G2S(OFF)}$	V_{DS} = 15 V V_{G1S} = 0 V I_D = 20 µA	-0.2		-2.5	**V**
$\|y_{fs}\|$	V_{DS} = 15 V V_{G1S} = 0 V V_{G2S} = 4.0 V f = 1.0 KHz	17		40	**mmhos**
C_{rss}	V_{DS} = 15 V V_{G2S} = 4.0 V I_D = 1.0 mA f = 1.0 MHz	0.005		0.05	**pF**

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SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
NF	V_{DD} = 24 V V_{GG} = 6.0 V f = 45 MHz			4.0	**dB**
G_{PS}		29		37	
B		3.5		6.0	**MHz**
$V_{GG(GC)}$	V_{DD} = 24 V ΔG_{ps} = -30 dB f = 45 MHz			±1.0	**V**
NF	V_{DD} = 18 V V_{GG} = 7.0 V f = 200 MHz			3.5	**dB**
G_{PS}		24		35	
B		5.0		12	**MHz**
$V_{GG(GC)}$	V_{DD} = 18 V ΔG_{ps} = -30 dB f = 200 MHz	0		-2.0	**V**