J270, J271

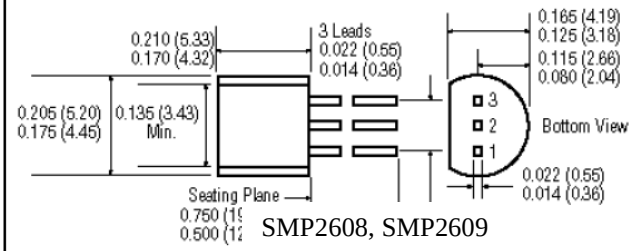
P-Channel Silicon Junction Field-Effect Transistor

- **Analog Switch**
- **Sample and Hold**
- **Low Noise, High Gain Amplifier**

Absolute maximum ratings at $T_A = 25^oC$

Reverse Gate Source & Gate Drain Voltage	-30V
Continuous Forward Gate Current	50 mA
Continuous Device Power Dissipation	360 mW
Power Derating	2.8 mW/^{o}C

At 25°C free air temperature		J270		J271		Process PJ99		
Static Electrical Characteristics		**Min**	**Max**	**Min**	**Max**	**Unit**	**Test Conditions**	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	-30		-30		V	I_G = 1 uA, V_{DS} = 0 V	
Gate Reverse Current	I_{GSS}		200		200	pA	V_{GS} = 10 V, V_{DS} = 0 V	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	0.5	2	1.5	4.5	V	V_{DS} = -10 V, V_{GS} = 0 V	
Drain Saturation Current (pulsed)	I_{DSS}	-2	-15	-6	-50	mA	V_{DS} = -10 V, V_{GS} = 0 V	
Dynamic Electrical Characteristics								
Common-Source Forward Transconductance	g_{fs}	6	15	8	18	mS	V_{DS} = -10 V, V_{GS} = 0 V	f = 1 kHz
Common-Source Input Capacitance	C_{iss}		32		32	pF	V_{DS} = -10 V, V_{GS} = 0 V	f = 1 MHz
Common-Source Reverse Transfer Capacitance	C_{rss}		4		4	pF	V_{DS} = -10 V, V_{GS} = 0 V	f = 1 MHz
Typical								
Equivalent Short Circuit Input Noise Voltage	~e_N	6		6		nV/√Hz	V_{DS} = 10 V, I_D = 5 mA	f = 1 kHz



SMP2608, SMP2609

TO-226AA Package (TO92)

Dimensions in Inches (mm)

Pin Configuration

1 Drain, 2 Gate, 3 Source

Surface Mount · SMPJ270, SMPJ271

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