J201, J202

N-Channel Silicon Junction Field-Effect Transistor

- **Audio Amplifiers**
- **General Purpose Amplifiers**

Absolute maximum ratings at T_A = 25 ˚C

Reverse Gate Source & Reverse Gate Drain Voltage	– 40 V
Continuous Forward Gate Current	50 mA
Continuous Device Power Dissipation	360 mW
Power Derating	3.27 mW/°C

At 25°C free air temperature: Static Electrical Characteristics		J201 Min	J201 Typ	J201 Max	J202 Min	J202 Typ	J202 Max	Unit	Process NJ16 Test Conditions	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	– 40			– 40			V	I_G = – 1μA, V_{DS} = ØV	
Gate Reverse Current	I_{GSS}			– 100			– 100	pA	V_{GS} = – 20V, V_{DS} = ØV	
Gate Operating Current	I_G		– 10			– 10		pA	V_{DG} = 20V, I_D = $I_{DSS(min)}$	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	– 0.3		– 1.5	– 0.8		– 4	V	V_{DS} = 20V, I_D = 10 nA	
Drain Saturation Current (Pulsed)	I_{DSS}	0.2		1	0.9		4.5	mA	V_{DSS} = 15V, V_{GS} = ØV	
Dynamic Electrical Characteristics										
Common Source Forward Transconductance	g_{fs}	500			1000			μS	V_{DS} = 20V, V_{GS} = ØV	f = 1 kHz
Common Source Output Conductance	g_{os}		1			3.5		μS	V_{DS} = 20V, V_{GS} = ØV	f = 1 kHz
Common Source Input Capacitance	C_{iss}		4			4		pF	V_{DS} = 20V, V_{GS} = ØV	f = 1 MHz
Common Source Reverse Transfer Capacitance	C_{rss}		1			1		pF	V_{DS} = 20V, V_{GS} = ØV	f = 1 MHz
Equivalent Short Circuit Input Noise Voltage	$\bar{e}_N$		5			5		nV/√Hz	V_{DS} = 10V, V_{GS} = ØV	f = 1 kHz

TO-226AA Package
Dimensions in Inches (mm)
Pin Configuration
1 Drain, 2 Source, 3 Gate

Surface Mount
SMPJ201, SMPJ202

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