2N4867, 2N4867A, 2N4868, 2N4868A, 2N4869, 2N4869A

N-Channel Silicon Junction Field-Effect Transistor

- **Audio Amplifiers**

Absolute maximum ratings at T_A = 25°C

Reverse Gate Source & Reverse Gate Drain Voltage	– 40 V
Gate Current	50 mA
Continuous Device Power Dissipation	300mW
Power Derating	1.7 mW/°C
Storage Temperature Range	– 65°C to + 200°C

At 25°C free air temperature: Static Electrical Characteristics		2N4867 2N4867A		2N4868 2N4868A		2N4869 2N4869A		Process NJ16		
		Min	Max	Min	Max	Min	Max	Unit	Test Conditions	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	– 40		– 40		– 40		V	I_G = – 1µA, V_{DS} = ØV	
Gate Reverse Current	I_{GSS}		– 0.25		– 0.25		– 0.25	nA	V_{GS} = – 30V, V_{DS} = ØV	
			– 0.25		– 0.25		– 0.25	µA	V_{GS} = – 30V, V_{DS} = ØV	T_A = 150°C
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	– 0.7	– 2	– 1	– 3	– 1.8	– 5	V	V_{DS} = 20V, I_D = 1 µA	
Drain Saturation Current (Pulsed)	I_{DSS}	0.4	1.2	1	3	2.5	7.5	mA	V_{DS} = 20V, V_{GS} = ØV	
Dynamic Electrical Characteristics										
Common Source Forward Transconductance	g_{fs}	700	2000	1000	3000	1300	4000	µS	V_{DS} = 20V, V_{GS} = ØV	f = 1 kHz
Common Source Output Conductance	g_{os}		1.5		4		10	µS	V_{DS} = 20V, V_{GS} = ØV	f = 1 kHz
Common Source Input Capacitance	C_{iss}		25		25		25	pF	V_{DS} = 20V, V_{GS} = ØV	f = 1 MHz
Common Source Reverse Transfer Capacitance	C_{rss}		5		5		5	pF	V_{DS} = 20V, V_{GS} = ØV	f = 1 MHz
Equivalent Short Circuit Input Noise Voltage	$\bar{e}_N$		20		20		20	nV/√HZ	V_{DS} = 10V, V_{GS} = ØV	f = 10 Hz
			10		10		10	nV/√HZ	V_{DS} = 10V, V_{GS} = ØV	f = 1 kHz
Noise Figure	NF		1		1		1	dB	V_{DS} = 10V, V_{GS} = ØV	f = 1 kHz
									(2N4867, 68, 69) R_G = 20 kΩ **(2N4867A, 68A, 69A)** R_G = 5 kΩ	

TO-72 Package
Dimensions in Inches (mm)

Pin Configuration
1 Source, 2 Drain, 3 Gate, 4 Case

Surface Mount
SMP4867, SMP4867A, SMP4868, SMP4868A, SMP4869, SMP4869A

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