

n-channel JFET designed for . . .

Siliconix

MPF109

Performance Curves NRL/
NPA/NH See Section 4

- General Purpose Amplifiers
- Analog Switches

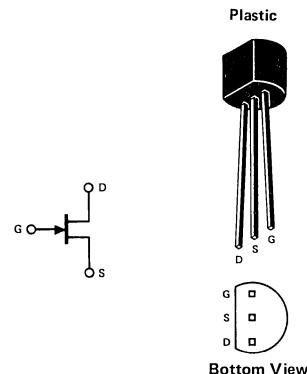
BENEFITS

- Low Cost
- Automatic Insertion Package

TO-92
See Section 6

ABSOLUTE MAXIMUM RATINGS (25°C)

Drain-Gate Voltage	25 V
Source-Gate Voltage	25 V
Drain-Source Voltage	25 V
Forward Gate Current	10 mA
Total Device Dissipation at 25°C Ambient (Derate 3.27 mW/°C)	360 mW
Operating Temperature Range	-55 to 135°C
Storage Temperature Range	-55 to 150°C
Lead Temperature Range (1/16" from case for 10 seconds)	300°C



ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

Characteristic			Min	Typ	Max	Unit	Test Conditions	
1 S	I _{GSS}	Gate Reverse Current		-0.01	-1.0	nA	V _{GS} = -15 V, V _{DS} = 0	
2 T A	BV _{GSS}	Gate-Source Breakdown Voltage	-25	-60		V	I _G = -10 μA, V _{DS} = 0	
3 I	V _{GS(off)}	Gate-Source Cutoff Voltage	-0.2		-8.0		V _{DS} = 15 V, I _D = 10 μA	
4 C	I _{DSS}	Saturation Drain Current	0.5		24	mA	V _{DS} = 15 V, V _{GS} = 0 (Note 1)	
5 D Y	g _{fs}	Common-Source Forward Transconductance	800		6000	μmho	f = 1 kHz	
6 N	g _{os}	Common-Source Output Conductance		10	75		V _{DS} = 15 V, V _{GS} = 0	
7 A M	C _{iss}	Common-Source Input Capacitance		4.5	7.0	pF	f = 1 MHz	
8 I C	C _{rss}	Common-Source Reverse Transfer Capacitance		1.0	3.0			
9	NF	Noise Figure		0.04	2.5	dB	V _{DS} = 15 V, V _{GS} = 0, R _G = 1M Ω	f = 1 kHz

NOTE:

- Pulse test PW ≤ 630 ms, duty cycle ≤ 10%.

NRL/NPA/NH

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