

**SNJ450113 (TO-18) (Preliminary)****N-Channel Silicon Junction Field-Effect Transistor**

- Low R(on) Switch
- Low-Noise, High Gain Amplifier

**Absolute maximum ratings at T<sub>A</sub> = 25°C**

Reverse Gate Source & Gate Drain Voltage -25V  
 Continuous Forward Gate Current 10 mA  
 Operating Temperature Range -55°C to +150°C  
 Storage Temperature Range -65°C to +175°C

At 25°C free air temperature

Static Electrical Characteristics		Process NJ450				
		Min	Typ	Max	Unit	Test Conditions
Gate Source Breakdown Voltage	V <sub>(BR)GSS</sub>	-40	-45		V	I <sub>G</sub> = -1 uA, V <sub>DS</sub> = 0 V
Gate Reverse Current	I <sub>GSS</sub>		-50	-1000	pA	V <sub>GS</sub> = -10 V, V <sub>DS</sub> = 0 V
Gate Source Cutoff Voltage	V <sub>GS(OFF)</sub>	-0.3			V	V <sub>DS</sub> = 10 V, I <sub>D</sub> = 1 nA
Drain Saturation Current (pulsed)	I <sub>DSS</sub>	8		20	mA	V <sub>DS</sub> = 15 V, V <sub>GS</sub> = 0 V

Dynamic Electrical Characteristics

Forward Transconductance	g <sub>fs</sub>		20	30	mS	V <sub>DS</sub> = 15 V, V <sub>GS</sub> = 0 V	f = 1 kHz
Common-Source Input Capacitance	C <sub>iss</sub>			75	pF	V <sub>DS</sub> = 0V, V <sub>GS</sub> = -10 V	f = 1 MHz
Feedback Capacitance	C <sub>iss</sub>		15		pF	V <sub>DS</sub> = 0V, V <sub>GS</sub> = -10 V	f = 1 MHz

**TO-18 Package**

Dimensions in inches (mm)

