

SNJ450113 (T0-18) (Preliminary)**N-Channel Silicon Junction Field-Effect Transistor**

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

Absolute maximum ratings at T_A = 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 _{(BR)GSS} | -40 | -45 | | V | I _G = -1 uA, V _{DS} = 0 V |
| Gate Reverse Current | I _{GSS} | | -50 | -1000 | pA | V _{GS} = -10 V, V _{DS} = 0 V |
| Gate Source Cutoff Voltage | V _{GS(OFF)} | -0.3 | | | V | V _{DS} = 10 V, I _D = 1 nA |
| Drain Saturation Current (pulsed) | I _{DSS} | 8 | | 20 | mA | V _{DS} = 15 V, V _{GS} = 0 V |

Dynamic Electrical Characteristics

| | | | | | | | |
|---------------------------------|------------------|--|----|----|----|---|-----------|
| Forward Transconductance | g _{fs} | | 20 | 30 | mS | V _{DS} = 15 V, V _{GS} = 0 V | f = 1 kHz |
| Common-Source Input Capacitance | C _{iss} | | | 75 | pF | V _{DS} = 0V, V _{GS} = -10 V | f = 1 MHz |
| Feedback Capacitance | C _{iss} | | 15 | | pF | V _{DS} = 0V, V _{GS} = -10 V | f = 1 MHz |

TO-18 Package**Dimensions in inches (mm)**