

PJ32 Process

Silicon Junction Field-Effect Transistor

• General Purpose Amplifier

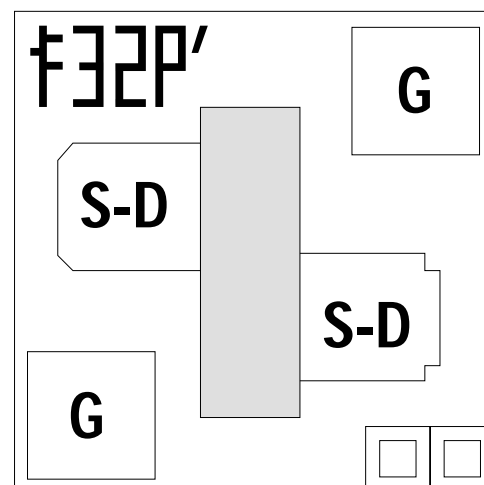
Absolute maximum ratings at TA = 25 °C

| | |
|--|------------------|
| Gate Current, I _G | 10 mA |
| Operating Junction Temperature, T _J | +150°C |
| Storage Temperature, T _S | - 65°C to +175°C |

Devices in this Databook based on the PJ32 Process.

Datasheet

2N5020, 2N5021
2N5460, 2N5461
2N5462



Die Size = 0.018" X 0.018"
All Bond Pads = 0.004" Sq.
Substrate is also Gate.

At 25°C free air temperature:

Static Electrical Characteristics

| | | PJ32 Process | | | | | | |
|-----------------------------------|----------------------|--------------|-----|------|------|--|--|--|
| | | Min | Typ | Max | Unit | Test Conditions | | |
| Gate Source Breakdown Voltage | V _{(BR)GSS} | 30 | 50 | | V | I _G = 1 μA, V _{DS} = ∅ | | |
| Reverse Gate Leakage Current | I _{GSS} | | 1 | 2 | nA | V _{GS} = 15V, V _{DS} = ∅ | | |
| Drain Saturation Current (Pulsed) | I _{DSS} | - 1 | | - 15 | mA | V _{DS} = - 15V, V _{GS} = ∅ | | |
| Gate Source Cutoff Voltage | V _{GS(OFF)} | 0.5 | | 7 | V | V _{DS} = - 15V, I _D = 1 nA | | |

Dynamic Electrical Characteristics

| | | | | | | | |
|--------------------------|------------------|--|-----|--|--------|--|-----------|
| Forward Transconductance | g _{fs} | | 2.5 | | mS | V _{DS} = - 15V, V _{GS} = ∅ | f = 1 kHz |
| Input Capacitance | C _{iss} | | 3.2 | | pF | V _{DS} = ∅, V _{GS} = 10 | f = 1 MHz |
| Feedback Capacitance | C _{rss} | | 1.7 | | pF | V _{DS} = ∅, V _{GS} = 10 | f = 1 MHz |
| Equivalent Noise Voltage | e _N | | 10 | | nV/√HZ | V _{DS} = 10V, V _{GS} = ∅ | f = 1 Hz |



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