

**2N5770**

NPN SILICON PLANAR EPITAXIAL TRANSISTOR

2N5770 is NPN silicon planar epitaxial transistor designed for small signal high frequency amplifiers and oscillators.

CASE TO-92A

**ABSOLUTE MAXIMUM RATINGS**

|                                          |          |               |
|------------------------------------------|----------|---------------|
| Collector-Base Voltage                   | VCBO     | 30V           |
| Collector-Emitter Voltage                | VCEO     | 15V           |
| Emitter-Base Voltage                     | VEBO     | 2V            |
| Collector Current                        | IC       | 50mA          |
| Total Power Dissipation @ TA=25°C        | Ptot     | 625mW         |
| @ TA=65°C                                |          | 300mW         |
| @ TC=25°C                                |          | 1W            |
| Operating Junction & Storage Temperature | Tj, Tstg | -55 to +150°C |

**ELECTRICAL CHARACTERISTICS AT (TA=25°C unless otherwise noted)**

| PARAMETER                            | SYMBOL   | MIN      | MAX     | UNIT     | TEST CONDITIONS                  |
|--------------------------------------|----------|----------|---------|----------|----------------------------------|
| Collector-Base Breakdown Voltage     | BVCBO    | 30       |         | V        | IC=100μA IE=0                    |
| Collector-Emitter Breakdown Voltage  | BVCEO    | 15       |         | V        | IC=3mA IB=0                      |
| Emitter-Base Breakdown Voltage       | BVEBO    | 3        |         | V        | IE=10μA IC=0                     |
| Collector Cutoff Current             | ICBO     |          | 10<br>1 | nA<br>μA | VCB=15V IE=0<br>VCB=15V TA=150°C |
| Collector-Emitter Saturation Voltage | VCE(SAT) |          | 0.4     | V        | IC=10mA IB=1mA                   |
| Base-Emitter Saturation Voltage      | VBE(SAT) |          | 1       | V        | IC=10mA IB=1mA                   |
| Current Gain-Bandwidth Product       | fT       | 800 typ. |         | MHz      | IC=8mA VCE=10V                   |
| Output Capacitance                   | Cob      |          | 1.7     | pF       | VCB=10V IE=0                     |
| Input Capacitance                    | Cib      |          | 2       | pF       | VEB=0.5V IC=0                    |
| Noise Figure                         | NF       |          | 6       | dB       | IC=1mA VCE=6V<br>RG=400Ω f=60MHz |

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