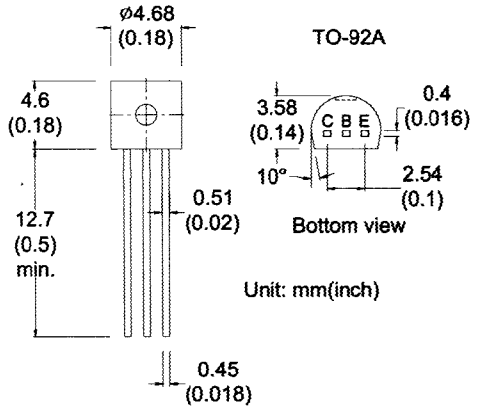
MICRO ELECTRONICS

CL5770

**NPN SILICON TRANSISTOR**

## DESCRIPTION

CL5770 is NPN silicon planar epitaxial transistor designed for small signal high frequency amplifiers and




## ABSOLUTE MAXIMUM RATINGS

| | | |
|---|---|---|
| Collector-Base Voltage | VCBO | 30V |
| Collector-Emitter Voltage | VCEO | 15V |
| Emitter-Base Voltage | VEBO | 3V |
| Collector Current | IC | 50mA |
| Total Power Dissipation | Ptot | 300mW |
| Operating Junction & Storage Temperature | Tj, Tstg | -55 to +150°C |

## ELECTRO-OPTICAL CHARACTERISTICS (Ta=25°C)

| PARAMETER | SYMBOL | MIN | MAX | UNIT | CONDITIONS | |
|---|---|---|---|---|---|---|
| Collector-Base Breakdown Voltage | BVCBO | 30 | | V | IC=0.1mA | IE=0 |
| Collector-Emitter Breakdown Voltage | LVCEO* | 15 | | V | IC=3mA | IB=0 |
| Emitter-Base Breakdown Voltage | BVEBO | 3 | | V | IE=0.01mA | IC=0 |
| Collector Cutoff Current | ICBO | | 10 | nA | VCB=15V | IE=0 |
| D.C. Current Gain | HFE* | 60 | 120 | | IC=3mA | VCE=1V |
| 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 |
| Gain Bandwidth Product | fT | 800 | TYP | MHz | IC=8mA | VCE=10V |
| | | | | | f=100MHz | |
| Output Capacitance | Cob | | 1.7 | pF | VCB=10V | f=1MHZ |
| Input Capacitance | Cib | | 2 | pF | VEB=0.5V | f=1MHZ |
| Noise Figure | NF | | 6 | dB | IC=1mA | VCE=6V |
| | | | | | RG=400ohm | f=60MHZ |

* Pulse test : pulse width <300μS, duty cycle < 2%.

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