

Boca Semiconductor Corp

BSC

Low Noise Tuned Amplifiers.

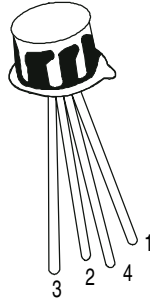
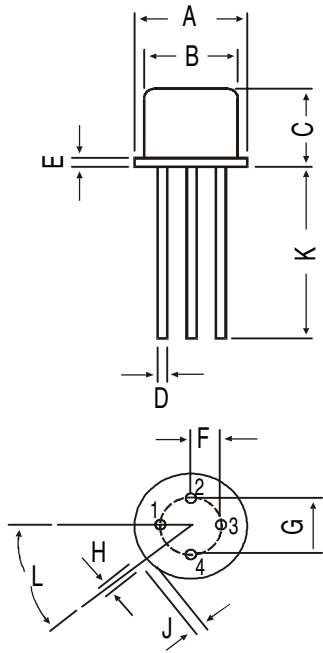
ABSOLUTE MAXIMUM RATINGS

| DESCRIPTION | SYMBOL | VALUE | UNIT |
|--------------------------------------------------|-----------|-------------|---------|
| Collector -Base Voltage | VCBO | 20 | V |
| Collector -Emitter Voltage | VCEO | 12 | V |
| Emitter Base Voltage | VEBO | 2.5 | V |
| Collector Current | IC | 50 | mA |
| Power Dissipation @ Ta=25 deg C | Ptot | 200 | mW |
| @ Tc=25 deg C | | 300 | mW |
| Operating And Storage Junction Temperature Range | Tj, Tstg | -65 to +200 | deg C |
| Thermal Resistance | | | |
| Junction to Case | Rth (j-c) | 583 | deg C/W |
| Junction to Ambient | Rth (j-a) | 875 | deg C/W |

ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

| DESCRIPTION | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|----------------------------------------|------------|-------------------------------|-----|-----|------|------|
| Collector Cut off Current | ICBO | VCB=15V, IE=0 Ta=150 deg C | - | - | 20 | nA |
| | | VCB=15V, IE=0 | - | - | 1.0 | uA |
| Collector -Base Voltage | VCBO | IC=1uA, IE=0 | 20 | - | - | V |
| Collector -Emitter Voltage | VCEO(sus) | IC=3mA, IB=0 | 12 | - | - | V |
| Emitter Base Voltage | VEBO | IE=10uA, IC=0 | 2.5 | - | - | V |
| Collector Emitter Saturation Voltage | VCE(Sat) | IC=10mA, IB=1mA | - | - | 0.40 | V |
| Base Emitter Saturation Voltage | VBE(Sat) | IC=10mA, IB=1mA | - | - | 1.0 | V |
| DC Current Gain | hFE | IC=3mA, VCE=1V | 25 | - | 250 | |
| DYNAMIC CHARACTERISTICS | | | | | | |
| Forward Current Transfer Ratio | hfe | IC=2mA, VCE=6V, f=1kHz | 25 | - | 300 | |
| | ft | IC=5mA, VCE=6V, f=100MHz | 900 | - | 2000 | MHz |
| Out-Put Capacitance | Cob | VCB=10V, IE=0, f=1MHz | - | - | 1.0 | pF |
| In-Put Capacitance | Cib | VEB=0.5V, IC=0, f=1MHz | - | - | 2.0 | pF |
| Collector Base Time Constant | rbb' Cb' c | IC=2mA, VCE=6V, f=31.9MHz | 3.0 | - | 14 | ps |
| Small-Signal Power Gain | Gp | IC=5mA, VCE=12V, f=200MHz | 15 | - | - | dB |
| Common Emitter Oscillator Power Output | Po | IE= -12mA, VCB=10V, f=>500MHz | 20 | - | - | mW |

TO-72 Metal Can Package



PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR
4. CASE

All dimensions in mm.

| DIM | MIN. | MAX. |
|-----|--------|--------|
| A | 5.24 | 5.84 |
| B | 4.52 | 4.95 |
| C | 4.31 | 5.33 |
| D | 0.40 | 0.53 |
| E | — | 0.76 |
| F | 1.14 | 1.39 |
| G | 2.28 | 2.97 |
| H | 0.91 | 1.17 |
| J | 0.71 | 1.22 |
| K | 12.70 | — |
| L | 12 DEG | 48 DEG |

Packing Detail

| PACKAGE | STANDARD PACK | | INNER CARTON BOX | | OUTER CARTON BOX | | |
|---------|---------------|----------------|------------------|------|-------------------|-------|--------|
| | Details | Net Weight/Qty | Size | Qty | Size | Qty | Gr Wt |
| TO-72 | 1 K/Polybag | 325 gm/1K pcs | 3" x 7.5" x 7.5" | 5.0K | 17" x 15" x 13.5" | 80.0K | 32 kgs |

Notes