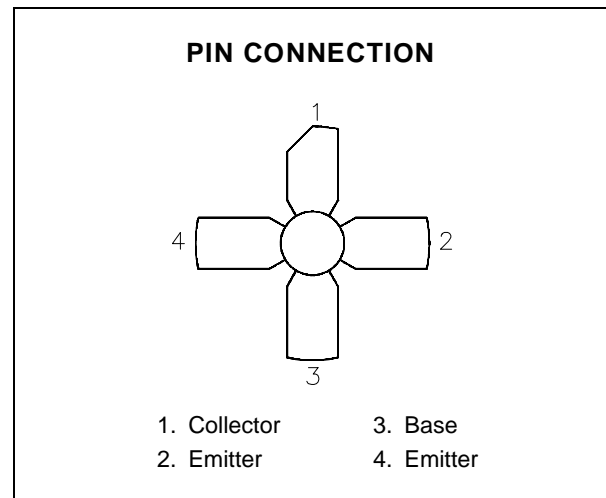
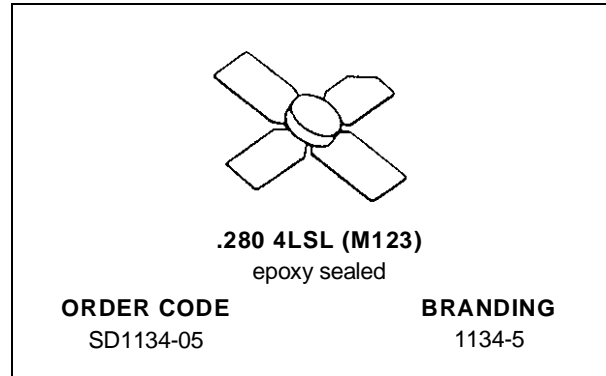


RF & MICROWAVE TRANSISTORS VHF PORTABLE/MOBILE APPLICATIONS

- 175 MHz
- 7.5 VOLTS
- COMMON EMITTER
- P_{OUT} = 0.5 W MIN. WITH 7.0 dB GAIN



DESCRIPTION

The SD1134-05 is a 7.5 V epitaxial silicon NPN planar transistor designed primarily for VHF communications. It with stands very high VSWR under rated operating conditions.

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

| Symbol | Parameter | Value | Unit |
|-------------------|---------------------------|--------------|------|
| V _{CBO} | Collector-Base Voltage | 36 | V |
| V _{CER} | Collector-Emitter Voltage | 16 | V |
| V _{CES} | Collector-Emitter Voltage | 36 | V |
| V _{EBO} | Emitter-Base Voltage | 4.0 | V |
| I _C | Device Current | 0.75 | A |
| P _{DISS} | Power Dissipation | 5.0 | W |
| T _J | Junction Temperature | +200 | °C |
| T _{STG} | Storage Temperature | - 65 to +150 | °C |

THERMAL DATA

| | | | |
|----------------------|----------------------------------|----|------|
| R _{TH(j-c)} | Junction-Case Thermal Resistance | 35 | °C/W |
|----------------------|----------------------------------|----|------|

SD1134-05**ELECTRICAL SPECIFICATIONS** ($T_{case} = 25^{\circ}C$)

STATIC

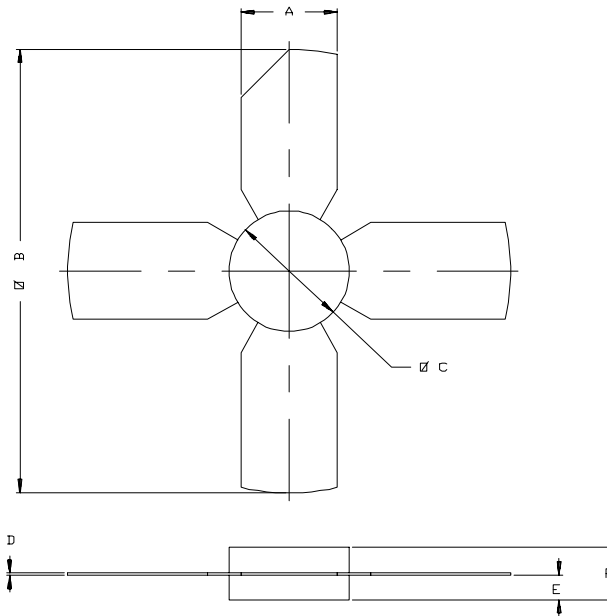
| Symbol | Test Conditions | | Value | | | Unit |
|------------|-----------------|---------------------|-------|------|------|------|
| | | | Min. | Typ. | Max. | |
| BV_{CES} | $I_C = 5mA$ | $V_{BE} = 0V$ | 36 | — | — | V |
| BV_{CEO} | $I_C = 25mA$ | $I_B = 0mA$ | 16 | — | — | V |
| BV_{EBO} | $I_E = 1mA$ | $I_C = 0mA$ | 4.0 | — | — | V |
| I_{CER} | $V_{CE} = 10V$ | $R_{BE} = 80\Omega$ | — | — | 0.5 | mA |
| I_{CBO} | $V_{CB} = 15V$ | $I_E = 0mA$ | — | — | 1.0 | mA |
| h_{FE} | $V_{CE} = 5V$ | $I_C = 100mA$ | 40 | — | 200 | — |

DYNAMIC

| Symbol | Test Conditions | | Value | | | Unit |
|-----------|----------------------|-------------------------|-------|------|------|------|
| | | | Min. | Typ. | Max. | |
| P_{OUT} | $f = 150\text{ MHz}$ | $V_{CC} = 7.5\text{ V}$ | 1.4 | — | — | W |
| G_P | $f = 150\text{ MHz}$ | $V_{CC} = 7.5\text{ V}$ | 11.5 | — | — | dB |
| C_{OB} | $f = 1\text{ MHz}$ | $V_{CB} = 7.5\text{ V}$ | — | 6.0 | — | pF |

PACKAGE MECHANICAL DATA

Ref.: Dwg. No.12-0123



| SGS-THOMSON MICROELECTRONICS | | |
|------------------------------|----------------------|----------------------|
| | MINIMUM Inches/mm | MAXIMUM Inches/mm |
| A | .220/5,59 | .230/5,84 |
| B | ----- | 1.055/26,8 |
| C | .275/6,99 | .285/7,24 |
| D | .004/0,10 | .006/0,15 |
| E | .050/1,27 | .060/1,52 |
| F | .118/3,00 | .130/3,30 |
| | | |

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