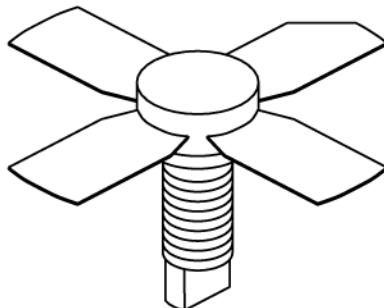


UMIL 3

3 Watts, 28 Volts, Class AB
Defcom 225 - 400 MHz

| | |
|---|---|
| <p>GENERAL DESCRIPTION</p> <p>The UMIL3 is a COMMON EMITTER broadband transistor specifically intended for use in the 225-400 MHz frequency band. It may be operated in Class AB or C. Gold metallization and silicon diffused resistors ensure ruggedness and high reliability.</p> | <p>CASE OUTLINE 55FT, Style 2</p>  |
| <p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 11 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 55 Volts BVebo Emitter to Base Voltage 4.0 Volts Ic Collector Current 0.7 A</p> <p>Maximum Temperatures</p> <p>Storage Temperature - 65 to +150°C Operating Junction Temperature +150°C</p> | |

ELECTRICAL CHARACTERISTICS @ 25 °C

| SYMBOL | CHARACTERISTICS | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|------------------|-------------------------|----------------------------|------|-----|------|-------|
| P _{out} | Power Output | F = 400 MHz | 3 | | | Watts |
| P _{in} | Power Input | V _{cc} = 28 Volts | | | 0.2 | Watts |
| P _g | Power Gain | | 11.8 | 13 | | dB |
| η _c | Efficiency | | | 60 | | % |
| V _{SWR} | Load Mismatch Tolerance | | | | 30:1 | |

| | | | | | | |
|-----------------|--------------------------------|---|-----|-----|-----|-------|
| BVebo | Emitter to Base Breakdown | I _e = 5 mA | 4.0 | | | Volts |
| BVces | Collector to Emitter Breakdown | I _c = 20 mA | 55 | | | Volts |
| BVceo | Collector to Emitter Breakdown | I _e = 50 mA | 30 | | | Volts |
| C _{ob} | Output Capacitance | V _{cb} = 28 V, F = 1 MHz | | 4.5 | | pF |
| h _{FE} | DC - Current Gain | V _{ce} = 5 V, I _c = 100 A | 10 | 45 | 150 | |
| θ _{jc} | Thermal Resistance | | | | 16 | °C/W |

Issue August 1996