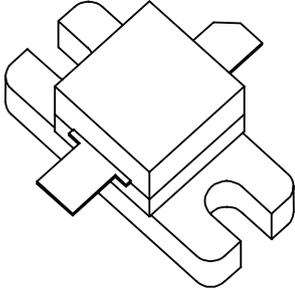




2425-25
25 WATT, 24V, Class C
Microwave 2410-2470 MHz

| | |
|--|--|
| <p>GENERAL DESCRIPTION</p> <p>The 2425-25 is a common base bipolar transistor capable of providing 25 Watts of Class C RF output power over the band of 2410-2470 MHz. This transistor is specifically designed for microwave broadband Class C amplifier applications. It includes input and output matching and uses gold metallization and diffused ballasting to provide high reliability and supreme ruggedness.</p> | <p>CASE OUTLINE 55AP Common Base Narrow Lead</p>  |
| <p>ABSOLUTE MAXIMUM RATINGS</p> <p>Power Dissipation</p> <p>Device Dissipation @25°C (P_d) 75 W</p> <p>Thermal Resistance (θ_{JC}) 2.5°C/W</p> <p>Voltage and Current</p> <p>Collector-Emitter Voltage 48V</p> <p>Emitter-Base Voltage 3.5V</p> <p>Collector Current 3A</p> <p>Temperatures</p> <p>Storage Temperature -65 to +200°C</p> <p>Operating Junction Temperature +200°C</p> | |

ELECTRICAL CHARACTERISTICS @ 25°C

| SYMBOL | CHARACTERISTICS | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-----------------|--------------------------------------|--|-----|-----|-----|-------|
| BVebo | Emitter-Base Breakdown(open) | I _e =25mA | 3.5 | | | V |
| BVces | Collector-Emitter Breakdown(shorted) | I _c =160mA | 48 | | | V |
| h _{FE} | DC Current Gain | I _c =160mA, V _{ce} =5V | 10 | | 100 | β |

FUNCTIONAL CHARACTERISTICS @ 25°C

| | | | | | | |
|----------------------|-------------------------|---|---------------|---------------|---------------|----|
| G _{PB} | Common Base Power Gain | V _{cc} = 24V, F = 2410-2470 MHz, P _{out} =25W | 7.5 | 8 | | dB |
| η _c | Collector Efficiency | V _{cc} = 24V, F = 2410-2470 MHz, P _{out} =25W | 47 | 49 | | % |
| VSWR | Output Load Mismatch | V _{cc} = 24V, F = 2410-2470 MHz, P _{out} =25W | | | 3:1 | Ψ |
| Z _{in} (1) | Series Source Impedance | V _{cc} =24V,F=2410,2440,2470 MHz,P _{out} =25W | 8.6- j19.7 | 8.4- j19.1 | 8.2- j18.5 | Ω |
| Z _{out} (2) | Series Load Impedance | V _{cc} =24V,F=2410,2440,2470 MHz,P _{out} =25W | 6.1- j5.7 | 6.1- j5.5 | 6.1- j5.2 | Ω |

- (1) Circuit source impedance (@ the device input) at which the device operates.
(2) Optimum load impedance into which the device output operates.

Initial Issue April 1999

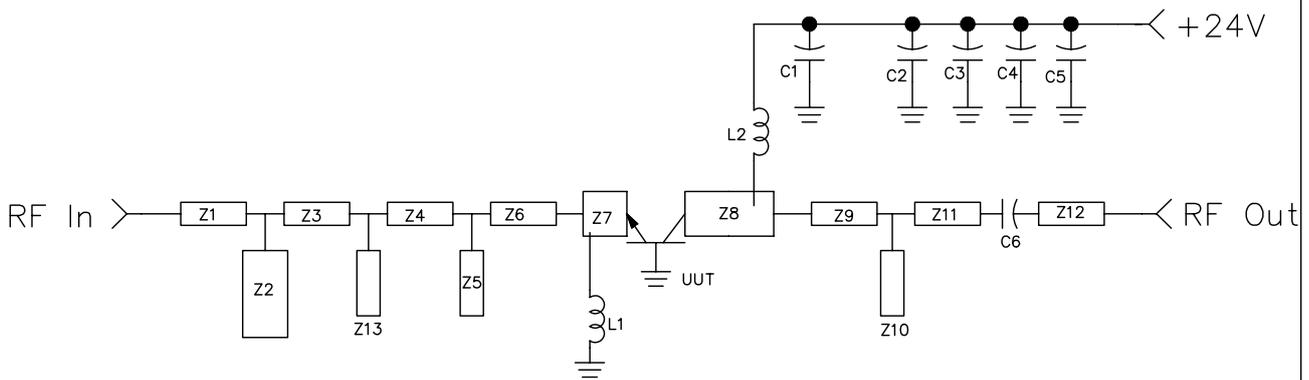
GHz TECHNOLOGY INC. RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE. GHz RECOMMENDS THAT BEFORE THE PRODUCT(S) DESCRIBED HEREIN ARE WRITTEN INTO SPECIFICATIONS, OR USED IN CRITICAL APPLICATIONS, THAT THE PERFORMANCE CHARACTERISTICS BE VERIFIED BY CONTACTING THE FACTORY.

GHz Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120



CH2 TECHNOLOGY

Test Fixture Schematic For The 2425-25



- Z1- Z13 See PCB Autocad Drawing 2425-25pcbrev2.dwg
- L1,L2 3 Turns 20 Awg, .150 ID
- C1 62pF ATC 100B
- C2 .001uF ATC1206
- C3 .010uF ATC1206
- C4 .1uF ATC1206
- C5 47uF 50V Electrolytic
- C6 62 pF ATC 100B

MECHANICAL DWG OF FIXTURE LAYOUT AVAILABLE UPON REQUEST

| | |
|---------|--------------------------------|
| CAGE | 0PJUR2 |
| DWG NO. | 2425-25 Test Fixture Schematic |
| SCALE | 1/8 |
| SHEET | |
| REV | - |

| | | | | |
|------|-----|-------------|------|----------|
| ZONE | REV | DESCRIPTION | DATE | APPROVED |
| | | | | |

REVISIONS