

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **ASI MRAL1720-5** is Designed for Class C, Common Base Wideband Large Signal Amplifier Applications up to 2.0 GHz.

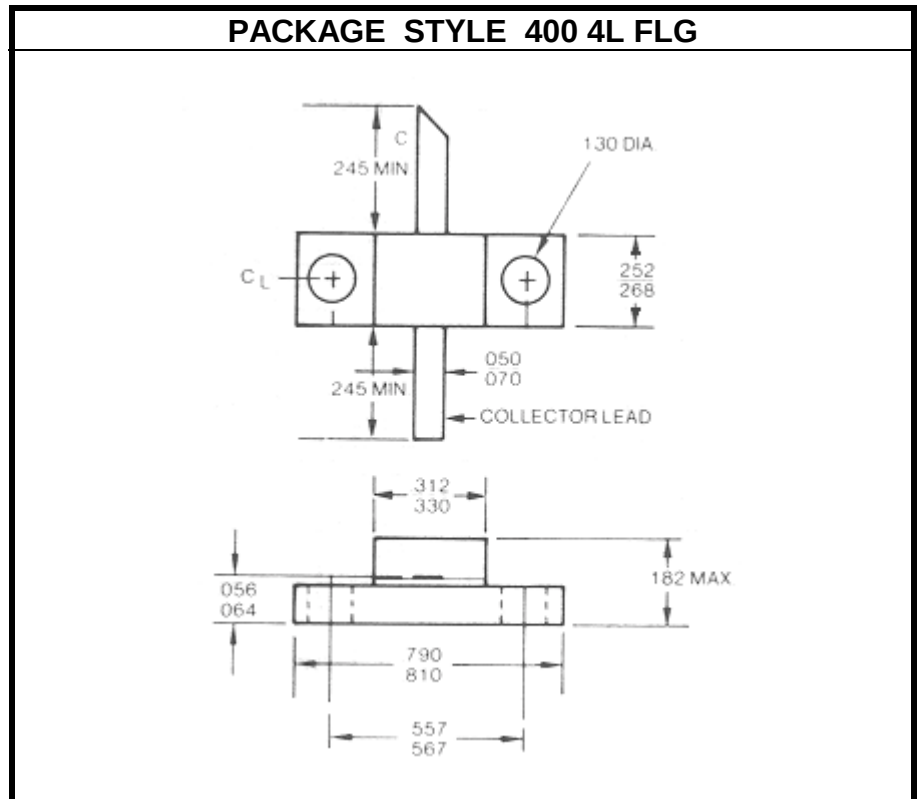
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## FEATURES:

- Diffused Ballast Resistors.
- Internal Matching Network
- **Omnigold™** Metalization System

## MAXIMUM RATINGS

|                        |                   |
|------------------------|-------------------|
| <b>I<sub>C</sub></b>   | 1.0 A (CONT)      |
| <b>V<sub>CES</sub></b> | 42 V              |
| <b>V<sub>EBO</sub></b> | 3.5 V             |
| <b>T<sub>J</sub></b>   | -65 °C to +200 °C |
| <b>T<sub>STG</sub></b> | -65 °C to +150 °C |
| <b>θ<sub>JC</sub></b>  | 8.0 °C/W          |



## CHARACTERISTICS T<sub>C</sub> = 25 °C

| SYMBOL                  | TEST CONDITIONS                                                       | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-------------------------|-----------------------------------------------------------------------|---------|---------|---------|-------|
| <b>BV<sub>CES</sub></b> | I <sub>C</sub> = 40 mA                                                | 42      |         |         | V     |
| <b>BV<sub>EBO</sub></b> | I <sub>E</sub> = 0.5 mA                                               | 3.5     |         |         | V     |
| <b>I<sub>CBO</sub></b>  | V <sub>CB</sub> = 22 V                                                |         |         | 1.0     | mA    |
| <b>h<sub>FE</sub></b>   | V <sub>CE</sub> = 5.0 V I <sub>C</sub> = 200 mA                       | 10      |         | 100     | ---   |
| <b>C<sub>ob</sub></b>   | V <sub>CB</sub> = 28 V f = 1.0 MHz                                    |         |         | 8.0     | pF    |
| <b>G<sub>PB</sub></b>   | V <sub>CE</sub> = 22 V P <sub>out</sub> = 5.0 W f = 1.7 GHz & 2.0 GHz | 6.5     |         |         | dB    |
| <b>η<sub>C</sub></b>    |                                                                       | 40      |         |         | %     |