

142

**NPN TRIPLE DIFFUSED
 PLANAR POWER TRANSISTOR
 (FORMERLY 42)**

VERY HIGH VOLTAGE, FAST SWITCHING

CONTACT METALLIZATION

Base and emitter: > 30,000 Å Aluminum

Collector: Gold

(Chrome Silver also available)

Also available on:

MOLY PEDESTAL

Size: .250" x .312" (6.35mm x 7.93mm)

Thickness: .010" (0.25mm)

BeO PEDESTAL

Size: .250" x .312" (6.35mm x 7.93mm)

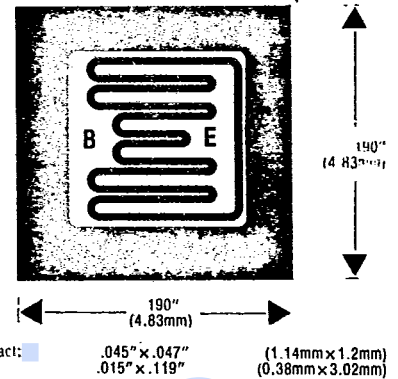
Thickness: .042" (1.07mm)

ASSEMBLY RECOMMENDATIONS

It is advisable that:

a) the die be mounted with appropriate preform.

b) 8 mil (0.203mm) aluminum wire be ultrasonically attached to the base and emitter contacts.



Datasheet.Live

TYPICAL ELECTRICAL CHARACTERISTICS AT 25°C

The following typical electrical characteristics apply for a completely finished component employing the element number 142 in a TO-3 or equivalent case:

| V_{CEO} | $V_{CE(s)}$ | @ | I_C | I_B | h_{FE} | @ | I_C | V_{CE} |
|-----------|-------------|---|-------|-------|----------|---|-------|----------|
| > 200V | < 0.5V | | 1.0A | 0.1A | > 10 | | 3A | 5V |
| > 300V | < 0.5V | | 1.0A | 0.1A | > 10 | | 3A | 5V |
| > 400V | < 0.5V | | 1.0A | 0.1A | > 10 | | 3A | 5V |

| V_{CEO} | V_{CES} | V_{EBO} | f_T | C_{OBO} | θ_{JC} |
|-----------|-----------|-----------|--------|-----------|---------------|
| > 200V | 500V | > 20V | 2.5MHz | < 140pF | < 1.0°C/W |
| > 300V | 600V | > 20V | 2.5MHz | < 140pF | < 1.0°C/W |
| > 400V | 700V | > 20V | 2.5MHz | < 140pF | < 1.0°C/W |

TYPICAL DEVICE TYPES: JAN2N3902, JAN2N5157, SDT401, SDT430

h_{FE} ranges available at $I_C = 1A$, $V_{CE} = 5V$, of 10-60, 30-90, and 40-120,