

NPN SILICON HIGH FREQUENCY TRANSISTOR

DESCRIPTION

The **ASI BLX65S** is Designed for 12.5 V Class C Amplifier Applications in the 100 to 500 MHz Frequency Range.

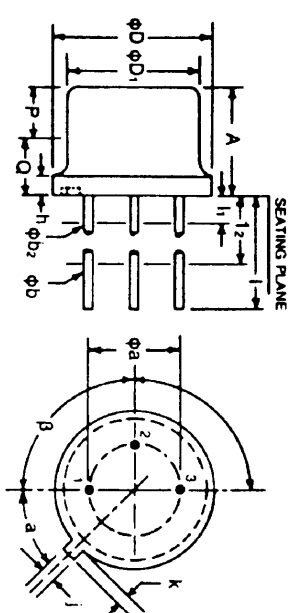
FEATURES INCLUDE:

- Economical **TO-39** Package
- 8 dB Typical Gain
- Emitter Ballasting

MAXIMUM RATINGS

| | |
|---------------|---------------------------------|
| I_C | 750 mA |
| V_{CBO} | 36 V |
| P_{DISS} | 5.0 W @ $T_C = 25^\circ C$ |
| T_J | $-65^\circ C$ to $+200^\circ C$ |
| T_{STG} | $-65^\circ C$ to $+200^\circ C$ |
| θ_{JC} | $35^\circ C / W$ |

PACKAGE STYLE TO-39



| SYMBOL | DIMENSIONS | | | |
|------------|-------------|-------|-------------|-------|
| | INCHES | | MILLIMETERS | |
| | MIN. | MAX. | MIN. | MAX. |
| ϕa | 0.190 | 0.210 | 4.83 | 5.33 |
| A | 0.240 | 0.260 | 6.10 | 6.60 |
| ϕb | 0.016 | 0.021 | 0.406 | 0.533 |
| ϕb_2 | 0.016 | 0.019 | 0.406 | 0.483 |
| ϕD | 0.350 | 0.370 | 8.89 | 9.40 |
| ϕD_1 | 0.315 | 0.335 | 8.00 | 8.51 |
| h | 0.009 | 0.125 | 0.229 | 3.18 |
| i | 0.028 | 0.034 | 0.711 | 0.864 |
| k | 0.029 | 0.040 | 0.737 | 1.02 |
| l | 0.500 | | 12.70 | |
| l_1 | | 0.050 | | 1.27 |
| l_2 | 0.250 | | 6.35 | |
| P | 0.100 | | 2.54 | |
| Q | | | | |
| a | 45° NOMINAL | | | |
| β | 90° NOMINAL | | | |

1 = EMITTER 2 = BASE
3 = COLLECTOR (CASE)

CHARACTERISTICS $T_A = 25^\circ C$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|----------------------|---|---------|---------|---------|---------|
| BV_{CEO} | $I_C = 50 \text{ mA}$ | 16 | | | V |
| BV_{CES} | $I_C = 50 \text{ mA}$ | 36 | | | V |
| BV_{EBO} | $I_E = 1.0 \text{ mA}$ | 2.5 | | | V |
| I_{CBO} | $V_{CB} = 15 \text{ V}$ | | | 1.0 | mA |
| h_{FE} | $V_{CB} = 5.0 \text{ V}$ $I_C = 50 \text{ mA}$ | 20 | | 200 | --- |
| C_{OB} | $V_{CB} = 12.5 \text{ V}$ $f = 1.0 \text{ MHz}$ | | 15 | | pF |
| G_{PE} η_C | $V_{CE} = 12.5 \text{ V}$ $P_{OUT} = 2.0 \text{ W}$ $f = 470 \text{ MHz}$ | 7.0 | 55 | | dB % |