

# UHF TV/LINEAR TRANSISTORS

SGS-THOMSON UHF TV/Linear transistors are specifically designed for television broadcast transmitters requiring ultra high linearity. Refractory/gold metallization is employed for maximum device ruggedness and high efficiency microwave die geometries are utilized to achieve high gain performance.

## 470-860 MHz CLASS A, COMMON EMITTER, UHF TV-BANDS

| PART NUMBER | FREQ. (MHz) | P <sub>OUT</sub> MIN (W) | P <sub>IN</sub> (W) | GAIN MIN (dB) | BIAS                |                     | IMD 3 TONES (dBC) | R <sub>TH(j-c)</sub> MAX (°C/W) | C <sub>OB</sub> MAX (pF) | PACKAGE STYLE |
|-------------|-------------|--------------------------|---------------------|---------------|---------------------|---------------------|-------------------|---------------------------------|--------------------------|---------------|
|             |             |                          |                     |               | V <sub>CE</sub> (V) | I <sub>c</sub> (mA) |                   |                                 |                          |               |
| SD1439      | 860         | .5                       | 0.56                | 9.5           | 20                  | 220                 | -58               | 5.5                             | 5                        | M122          |
| SD1449      | 860         | 1                        | 0.1                 | 10            | 20                  | 440                 | -58               | 9.0                             | 7                        | M122          |
| SD1437      | 860         | 2                        | 0.3                 | 8.5           | 25                  | 450                 | -60               | 11                              | 10                       | M122          |
| SD1448      | 860         | 4                        | 0.8                 | 7             | 25                  | 850                 | -60               | 5.5                             | 20                       | M122          |
| SD4011      | 860         | 4                        | 0.63                | 8.0           | 25                  | 850                 | -60               | 5.5                             | 20                       | M122          |
| SD1732      | 860         | 14                       | 1.2                 | 8.5           | 25                  | 2 x 850             | -45               | 2.5                             | 17.5*                    | M156          |
| SD4010      | 860         | 20                       | 2.2                 | 9.5           | 26.5                | 2 x 1350            | -48               | 1.9                             | 36                       | M119          |
| SD1490      | 860         | 25                       | 4.0                 | 8.0           | 25                  | 2 x 1600            | -45               | 1.3                             | 80                       | M173          |

\* Typical Value

| P/N CROSS REFERENCE |        |
|---------------------|--------|
| INDUSTRY P/N        | SD P/N |
| TCC596              | SD1439 |
| TCC597              | SD1449 |
| TCC593              | SD1437 |

| P/N CROSS REFERENCE |        |
|---------------------|--------|
| INDUSTRY P/N        | SD P/N |
| TCC598              | SD1448 |
| TDS595              | SD1732 |

## 470-860 MHz CLASS AB, COMMON EMITTER, UHF TV-BANDS

| PART NUMBER          | FREQ. (MHz) | P <sub>OUT</sub> MIN (W) | P <sub>IN</sub> (W) | GAIN MIN (dB) | BIAS                |                     | η <sub>C</sub> MIN (%) | R <sub>TH(j-c)</sub> MAX (°C/W) | C <sub>OB</sub> MAX (pF) | PACKAGE STYLE |
|----------------------|-------------|--------------------------|---------------------|---------------|---------------------|---------------------|------------------------|---------------------------------|--------------------------|---------------|
|                      |             |                          |                     |               | V <sub>CE</sub> (V) | I <sub>c</sub> (mA) |                        |                                 |                          |               |
| SD1489               | 860         | 50                       | 10.5                | 6.8           | 28                  | 2 x 250             | 45                     | 1.0                             | 70*                      | M173          |
| SD1492               | 860         | 150                      | 33.5                | 6.5           | 28                  | 2 x 500             | 45                     | 0.55                            | 100                      | M175          |
| SD4100               | 860         | 100                      | 14.0                | 8.5           | 28                  | 2 x 100             | 53                     | 0.8                             | 50*                      | M173          |
| TSD4200 <sup>‡</sup> | 860         | 150                      | 21.0                | 8.5           | 28                  | 2 x 200             | -                      | 0.6                             | 75*                      | M208          |

\* Typical Value

<sup>‡</sup> In Development