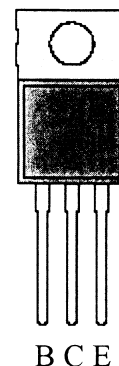


## 2SC2166

### Silicon NPN Transistor

### Final RF Power Output

The 2SC2166 is a silicon NPN epitaxial planer type transistor designed for RF power amplifiers on HF band mobile radio applications.



#### Features:

- High Power Gain:  $G_{pe} \geq 13,8\text{dB}$  ( $V_{CC} = 12\text{V}$ ,  $P_O = 6\text{W}$ ,  $f = 27\text{MHz}$ )

#### Application:

- 3 to 4 Watt Output Power Class AB Amplifier Applications in HF Band

#### Absolute Maximum Ratings: ( $T_C = +25^\circ\text{C}$ unless otherwise specified)

|                                                                     |                                     |
|---------------------------------------------------------------------|-------------------------------------|
| Collector-Emitter Voltage ( $R_{BE} = \text{Infinity}$ ), $V_{CEO}$ | 75V                                 |
| Collector-Base Voltage, $V_{CBO}$                                   | 75V                                 |
| Emitter-Base Voltage, $V_{EBO}$                                     | 5V                                  |
| Collector Current, $I_C$                                            | 4A                                  |
| Collector Power Dissipation ( $T_A = +25^\circ\text{C}$ ), $P_D$    | 1.5W                                |
| Collector Power Dissipation ( $T_C = +50^\circ\text{C}$ ), $P_D$    | 12.5W                               |
| Operating Junction Temperature, $T_J$                               | $+150^\circ\text{C}$                |
| Storage Temperature Range, $T_{stg}$                                | $-55^\circ$ to $+150^\circ\text{C}$ |
| Thermal Resistance, Junction-to-Case, $R_{thJC}$                    | $10^\circ\text{C/W}$                |
| Thermal Resistance, Junction-to-Ambient, $R_{thJA}$                 | $83^\circ\text{C/W}$                |

