

isc Silicon NPN RF Transistor

2SC2408

DESCRIPTION

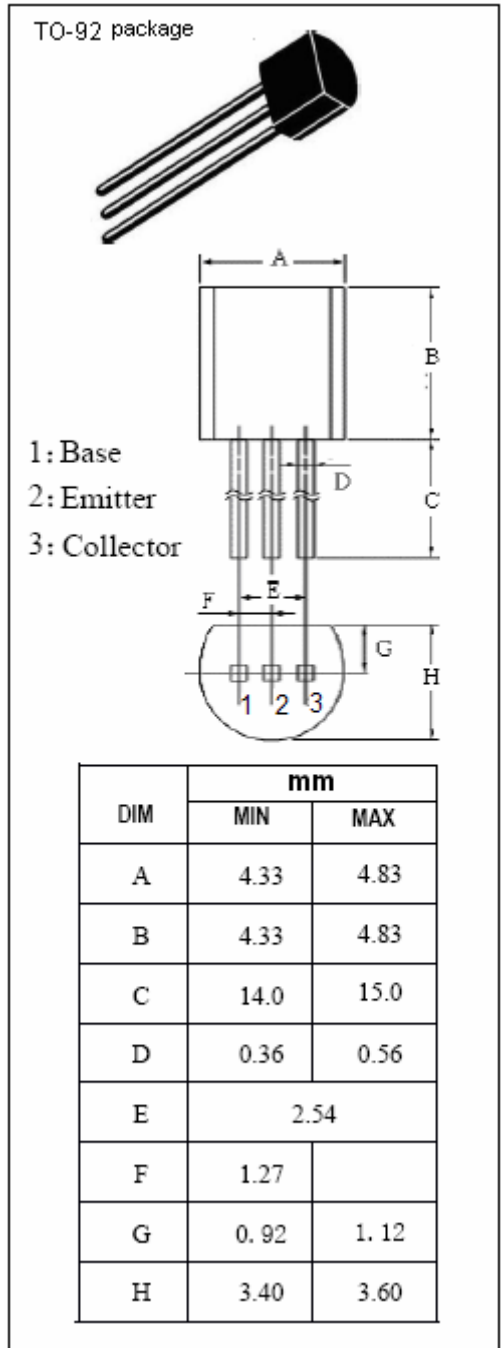
- Low Noise
 $NF = 2.4 \text{ dB TYP. ;@ } f = 200 \text{ MHz}$
- High Gain
 $|S_{21e}|^2 = 21 \text{ dB TYP. ;@ } f = 200 \text{ MHz}$

APPLICATIONS

- Designed for use in high frequency wide band amplifier.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|--|---------|------|
| V _{CBO} | Collector-Base Voltage | 35 | V |
| V _{CEO} | Collector-Emitter Voltage | 18 | V |
| V _{EBO} | Emitter-Base Voltage | 3 | V |
| I _C | Collector Current-Continuous | 150 | mA |
| P _C | Collector Power Dissipation @T _C =25°C | 0.6 | W |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature Range | -65~150 | °C |



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------|---|-----|------|-----|---------------|
| I_{CBO} | Collector Cutoff Current | $V_{CB}=20\text{V}; I_E=0$ | | | 0.5 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}=2\text{V}; I_C=0$ | | | 0.5 | μA |
| h_{FE} | DC Current Gain | $I_C=50\text{mA}; V_{CE}=10\text{V}$ | 30 | | 200 | |
| f_T | Current-Gain—Bandwidth Product | $I_C=50\text{mA}; V_{CE}=10\text{V}$ | | 3.5 | | GHz |
| C_{OB} | Output Capacitance | $I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$ | | 1.25 | 2.0 | pF |
| $ S_{21e} ^2$ | Insertion Power Gain | $I_C=50\text{mA}; V_{CE}=10\text{V}; f=200\text{MHz}; R_G=50\Omega$ | 18 | 21 | | dB |
| NF | Noise Figure | $I_C=30\text{mA}; V_{CE}=10\text{V}; f=200\text{MHz}; R_G=50\Omega$ | | 2.4 | 4.0 | dB |