

Silicon PNP Power Transistor

2SA1141

DESCRIPTION

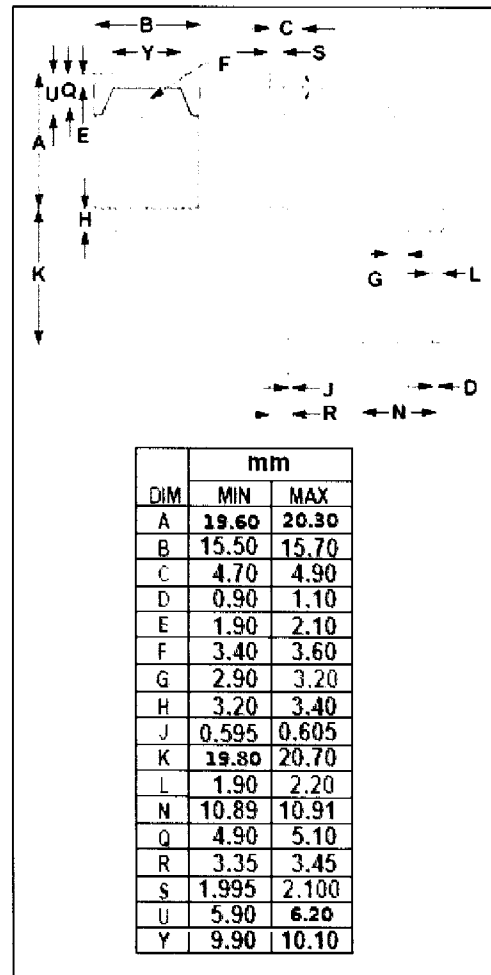
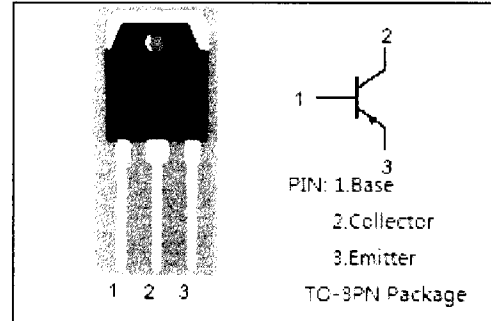
- Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -115V(\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type 2SC2681

APPLICATIONS

- Audio frequency power amplifier
- High frequency power amplifier

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -115 | V |
| V_{CEO} | Collector-Emitter Voltage | -115 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -10 | A |
| I_{CM} | Collector Current-Peak | -15 | A |
| P_C | Collector Power Dissipation @ $T_a=25^\circ\text{C}$ | 2.0 | W |
| | Collector Power Dissipation @ $T_c=25^\circ\text{C}$ | 100 | |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



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ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|--|-----|------|------|---------------|
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -4.5\text{A}; I_B = -0.45\text{A}$ | | | -1.5 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C = -4.5\text{A}; V_{CE} = -2\text{V}$ | | | -2.0 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB} = -80\text{V}; I_E = 0$ | | | -50 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB} = -5\text{V}; I_C = 0$ | | | -50 | μA |
| h_{FE-1} | DC Current Gain | $I_C = -1\text{A}; V_{CE} = -2\text{V}$ | 60 | | 200 | |
| h_{FE-2} | DC Current Gain | $I_C = -4.5\text{A}; V_{CE} = -2\text{V}$ | 40 | | | |
| C_{OB} | Output Capacitance | $I_E = 0; V_{CB} = -10\text{V}; f = 1.0\text{MHz}$ | | 390 | | pF |
| f_T | Current-Gain—Bandwidth Product | $I_C = -1\text{A}; V_{CE} = -2\text{V}$ | | 90 | | MHz |

◆ h_{FE-1} Classifications

| R | Q |
|--------|---------|
| 60-120 | 100-200 |