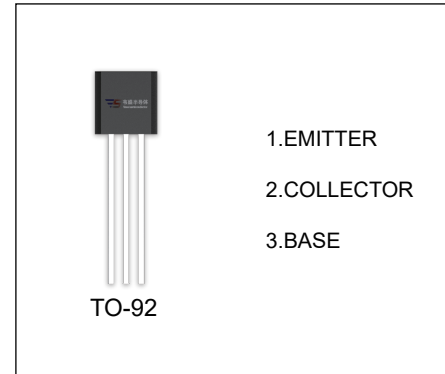


2SC1008 TRANSISTOR (NPN)

FEATURES

- General Purpose Switching and Amplification



ORDERING INFORMATION

| Part Number | Package | Packing Method | Pack Quantity |
|-------------|---------|----------------|---------------|
| 2SC1008 | TO-92 | Bulk | 1000pcs/Bag |
| 2SC1008-TA | TO-92 | Tape | Ⓔ 2000pcs/Box |

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------------------------|--|----------|-------|
| V _{CBO} | Collector-Base Voltage | 80 | V |
| V _{CEO} | Collector-Emitter Voltage | 60 | V |
| V _{EBO} | Emitter-Base Voltage | 8 | V |
| I _C | Collector Current | 700 | mA |
| P _C | Collector Power Dissipation | 800 | mW |
| R _{θJA} | Thermal Resistance From Junction To Ambient | 156 | °C /W |
| T _J , T _{stg} | Operation Junction and Storage Temperature Range | -55~+150 | °C |

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

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---|-----|-----|-----|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=0.1\text{mA}, I_E=0$ | 80 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=10\text{mA}, I_B=0$ | 60 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=0.01\text{mA}, I_C=0$ | 8 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=60\text{V}, I_E=0$ | | | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=5\text{V}, I_C=0$ | | | 0.1 | μA |
| DC current gain | h_{FE} | $V_{CE}=2\text{V}, I_C=50\text{mA}$ | 40 | | 400 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=500\text{mA}, I_B=50\text{mA}$ | | | 0.4 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C=500\text{mA}, I_B=50\text{mA}$ | | | 1.1 | V |
| Collector output capacitance | C_{ob} | $V_{CB}=10\text{V}, I_C=0, f=1\text{MHz}$ | | 8 | | pF |
| Transition frequency | f_T | $V_{CE}=10\text{V}, I_C=50\text{mA}$ | 30 | | | MHz |

CLASSIFICATION OF h_{FE}

| RANK | R | O | Y | G |
|-------|-------|--------|---------|---------|
| RANGE | 40-80 | 70-140 | 120-240 | 200-400 |

Static Characteristic
