



TO-92 Plastic-Encapsulate Transistors

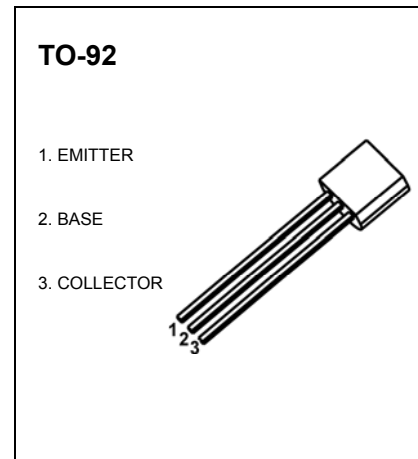
MPS2907A TRANSISTOR (PNP)

FEATURES

- Complementary NPN Type available (MPS2222A)

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

| Symbol | Parameter | Value | Unit |
|------------------|-------------------------------|---------|------|
| V _{CB0} | Collector-Base Voltage | -60 | V |
| V _{CEO} | Collector-Emitter Voltage | -60 | V |
| V _{EBO} | Emitter-Base Voltage | -5 | V |
| I _C | Collector Current -Continuous | -0.6 | A |
| P _C | Collector Power Dissipation | 0.625 | W |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55-150 | °C |



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|--|-----|-----|-------|------|
| Collector-base breakdown voltage | V _{(BR)CBO} | I _C =-10μA, I _E =0 | -60 | | | V |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C =-10mA, I _B =0 | -60 | | | V |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E =-10μA, I _C =0 | -5 | | | V |
| Collector cut-off current | I _{CBO} | V _{CB} =-50V, I _E =0 | | | -10 | nA |
| Collector cut-off current | I _{CEX} | V _{CE} =-30V, V _{EB(off)} =-0.5V | | | -50 | nA |
| Emitter cut-off current | I _{EBO} | V _{EB} =-3V, I _C =0 | | | -10 | nA |
| DC current gain | h _{FE(1)} | V _{CE} =-10V, I _C =-0.1mA | 78 | | | |
| | h _{FE(2)} | V _{CE} =-10V, I _C =-150mA | 100 | | 300 | |
| | h _{FE(3)} | V _{CE} =-10V, I _C =-500mA | 52 | | | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =-150mA, I _B =-15mA | | | -0.4 | V |
| | V _{CE(sat)} | I _C =-500mA, I _B =-50mA | | | -0.67 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C =-150mA, I _B =-15mA | | | -1 | V |
| | V _{BE(sat)} | I _C =-500mA, I _B =-50mA | | | -1.2 | V |
| Transition frequency | f _T | V _{CE} =-20V, I _C =-50mA, f=100MHz | 200 | | | MHz |
| Delay time | t _d | V _{CC} =-30V, I _C =-150mA, | | | 10 | ns |
| Rise time | t _r | I _{B1} =-I _{B2} =-15mA | | | 25 | ns |
| Storage time | t _s | V _{CC} =-6V, I _C =-150mA, | | | 225 | ns |
| Fall time | t _f | I _{B1} =-I _{B2} =-15mA | | | 60 | ns |

CLASSIFICATION OF h_{FE(2)}

| Rank | L | H |
|-------|---------|---------|
| Range | 100-200 | 200-300 |

Typical Characteristics

MPS2907A

