

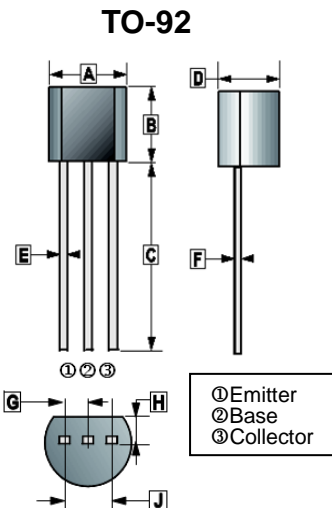
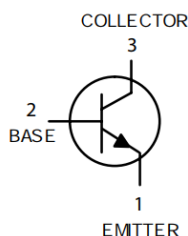
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Ideal for Medium Power Amplification and Switching
- Complementary PNP Type Available (MPS2907A)

ORDER INFORMATION

| Part Number | Type |
|-------------|---------------------------------|
| MPS2222A | Lead (Pb)-free |
| MPS2222A-C | Lead (Pb)-free and Halogen-free |



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|------|
| | Min. | Max. | | Min. | Max. |
| A | 4.30 | 4.70 | F | 0.30 | 0.51 |
| B | 4.30 | 4.70 | G | 1.27 TYP. | |
| C | 12.70 | 14.5 | H | 1.10 | 1.40 |
| D | 3.30 | 3.81 | J | 2.42 | 2.66 |
| E | 0.36 | 0.56 | | | |

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

| Parameter | Symbol | Rating | Unit |
|---|-----------------------------------|--------------|--------|
| Collector to Base Voltage | V _{CB0} | 75 | V |
| Collector to Emitter Voltage | V _{CEO} | 40 | V |
| Emitter to Base Voltage | V _{EBO} | 6 | V |
| Collector Current - Continuous | I _C | 600 | mA |
| Collector Power Dissipation | P _C | 625 | mW |
| Thermal Resistance From Junction To Ambient | R _{θJA} | 200 | °C / W |
| Junction, Storage Temperature | T _J , T _{STG} | 150, -55~150 | °C |

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

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Condition |
|---|----------------------|------|------|------|------|---|
| Collector to Base Breakdown Voltage | V _{(BR)CBO} | 75 | - | - | V | I _C =10μA, I _E =0 |
| Collector to Emitter Breakdown Voltage | V _{(BR)CEO} | 40 | - | - | V | I _C =10mA, I _B =0 |
| Emitter to Base Breakdown Voltage | V _{(BR)EBO} | 6 | - | - | V | I _E =10μA, I _C =0 |
| Collector Cut-Off Current | I _{CBO} | - | - | 10 | nA | V _{CB} =60V, I _E =0 |
| Collector Cut-Off Current | I _{CEX} | - | - | 10 | nA | V _{CE} =60V, V _{BE(off)} =3V |
| Emitter Cut-Off Current | I _{EBO} | - | - | 100 | nA | V _{EB} =3V, I _C =0 |
| DC Current Gain | h _{FE} (1) | 40 | - | - | | V _{CE} =10V, I _C =0.1mA |
| | h _{FE} (2) | 100 | - | 300 | | V _{CE} =10V, I _C =150mA |
| | h _{FE} (3) | 42 | - | - | | V _{CE} =10V, I _C =500mA |
| Collector to Emitter Saturation Voltage | V _{CE(sat)} | - | - | 0.3 | V | I _C =150mA, I _B =15mA |
| | V _{CE(sat)} | - | - | 0.6 | | I _C =500mA, I _B =50mA |
| Base to Emitter Voltage | V _{BE(sat)} | - | - | 1.2 | V | I _C =500mA, I _B =50mA |
| Transition Frequency | f _T | 300 | - | - | MHz | V _{CE} =20V, I _C =20mA, f=100MHz |
| Delay Time | t _d | - | 10 | - | nS | V _{CC} =30V, I _C =150mA, I _{B1} =15mA, V _{BE(off)} =-0.5V |
| Rise Time | t _r | - | 25 | - | | |
| Storage Time | t _s | - | 225 | - | | |
| Fall Time | t _f | - | 60 | - | | |

TYPICAL CHARACTERISTICS

