



MP2510

Preliminary **PNP EPITAXIAL SILICON TRANSISTOR**

PNP TRANSISTOR

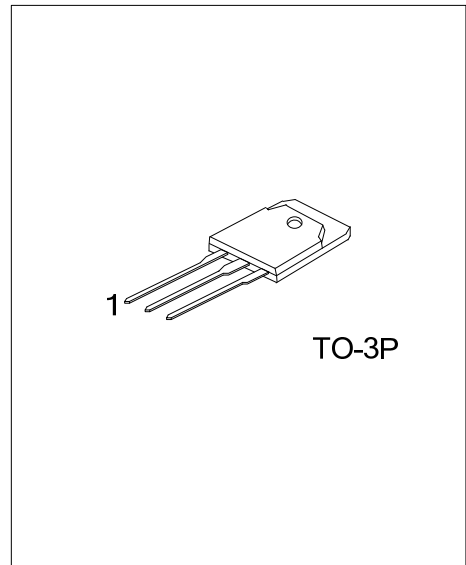
■ DESCRIPTION

The UTC **MP2510** is a PNP transistor, it uses UTC's advanced technology to provide the customers with high DC current gain and high collector-emitter breakdown voltage, etc.

The UTC **MP2510** is suitable for automobile power amplifiers, etc.

■ FEATURES

- * High DC current gain (Min = 40@ $V_{CE} = 4V, I_C = 12A$)
- * High collector-emitter breakdown voltage (Min = -100V)



■ ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | Packing |
|-----------------|-----------------|---------|----------------|---|---|---------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| MP2510L-x-T3P-T | MP2510G-x-T3P-T | TO-3P | B | C | E | Tube |

Pin Assignment: B: Base C: Collector E: Emitter

| | | |
|------------------------|---|---|
| <p>MP2510L-x-T3P-T</p> | <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Rank</p> <p>(4) Halogen Free</p> | <p>(1) T: Tube</p> <p>(2) T3P: TO-3P</p> <p>(3) refer to CLASSIFICATION OF h_{FE}</p> <p>(4) L: Lead Free, G: Halogen Free</p> |
|------------------------|---|---|

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--|------------------|---------|------|
| Collector-Base Voltage | V _{CBO} | -100 | V |
| Collector-Emitter Voltage | V _{CEO} | -100 | V |
| Emitter-Base Voltage | V _{EBO} | -6 | V |
| Collector Current | I _C | -25 | A |
| Base Current | I _B | -5 | A |
| Collector Power Dissipation (T _C =25°C) | P _C | 125 | W |
| Junction Temperature | T _J | 150 | °C |
| Storage Temperature | T _{STG} | -55~150 | °C |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|--|------|-----|------|------|
| Collector Cut-Off Current | I _{CBO} | V _{CB} =100V | | | -10 | μA |
| Emitter Cut-Off Current | I _{EBO} | V _{EB} =6V | | | -10 | μA |
| Collector-Emitter Voltage | V _{(BR)CEO} | I _C =50mA | -100 | | | V |
| DC Current Gain (Note 1) | h _{FE} | V _{CE} =4V, I _C =12A | 40 | | 120 | |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | I _C =12A, I _B =1.2A | | | -1.5 | V |
| Base- Emitter Saturation Voltage | V _{BE(ON)} | V _{CE} =4V, I _C =12A | | | -1.8 | V |
| Cut-Off Frequency | f _T | V _{CE} =12V, I _E =-1A | | 20 | | MHz |
| Output Capacitance | C _{ob} | V _{CB} =10V, I _E =0A, f=1MHz | | 200 | | pF |

■ CLASSIFICATION OF h_{FE}

| RANK | R | O |
|------------------|-------|--------|
| h _{FE1} | 40~80 | 60~120 |

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