



UN2488

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

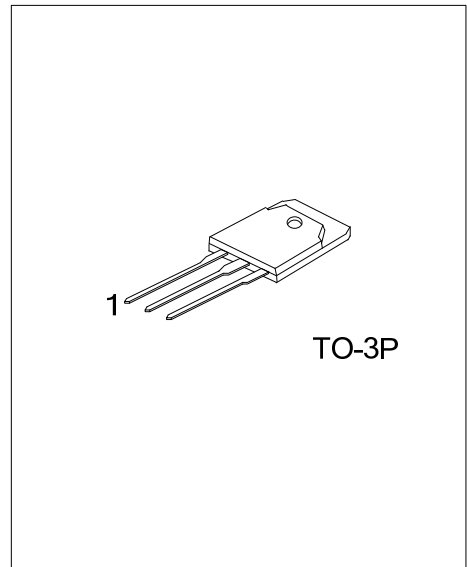
NPN SILICON POWER TRANSISTOR

■ DESCRIPTION

The UTC **UN2488** is an NPN epitaxial transistor, it uses UTC's advanced technology to provide the customers with high collector-emitter breakdown voltage and ultra-high DC current gain, etc.

■ FEATURES

- * High collector-emitter breakdown voltage
- * Ultra-high DC current gain



■ ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | Packing |
|-----------------|-----------------|---------|----------------|---|---|---------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| UN2488L-x-T3P-T | UN2488G-x-T3P-T | TO-3P | B | C | E | Tube |

Note: Pin Assignment: A: Anode, K: Cathode

| | |
|------------------------|--|
| <p>UN2488L-x-T3P-T</p> | <p>(1) T: Tube (2) T3P: TO-3P (3) x: refer to Classification of h_{FE} (4) L: Lead Free, G: Halogen Free</p> |
|------------------------|--|

■ MARKING INFORMATION

| PACKAGE | MARKING |
|---------|---------|
| TO-3P | |

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--|-----------|------------|------------------|
| Collector-Base Voltage | V_{CBO} | 160 | V |
| Collector-Emitter Voltage | V_{CEO} | 150 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 10 | A |
| Base Current | I_B | 1 | A |
| Collector Power Dissipation ($T_C=25^\circ\text{C}$) | P_C | 150 | W |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -55 ~ +150 | $^\circ\text{C}$ |

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 ($T_A=25^\circ\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|---|------|-----|-------|---------------|
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=160\text{V}$, $I_E=0\text{A}$ | | | 100 | μA |
| Emitter Cut-Off Current | I_{EBO} | $V_{EB}=5\text{V}$, $I_C=0\text{A}$ | | | 100 | μA |
| Collector-Emitter Voltage | V_{CEO} | $I_C=30\text{mA}$ | 150 | | | V |
| DC Current Gain | h_{FE} | $V_{CE}=4\text{V}$, $I_C=7\text{A}$ | 5000 | | 30000 | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=7\text{A}$, $I_B=7\text{mA}$ | | | 2.5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=7\text{A}$, $I_B=7\text{mA}$ | | | 3.0 | V |
| Current Gain Bandwidth Product | f_T | $V_{CE}=12\text{V}$, $I_E=2\text{A}$ | | 55 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB}=10\text{V}$, $f=1\text{MHz}$, $I_E=0\text{A}$ | | 95 | | pF |

■ CLASSIFICATION OF h_{FE}

| RANK | O | P | Y |
|-------|--------------|--------------|---------------|
| RANGE | 5000 ~ 12000 | 6500 ~ 20000 | 15000 ~ 30000 |

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