UTC UNISONIC TECHNOLOGIES CO., LTD

9015

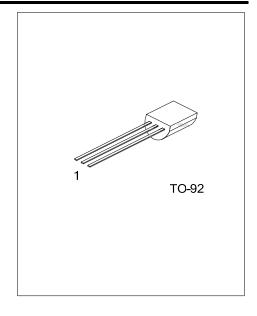
Preliminary

PNP EPITAXIAL SILICON TRANSISTOR

PRE-AMPLIFIER, LOW LEVEL & **LOW NOISE**

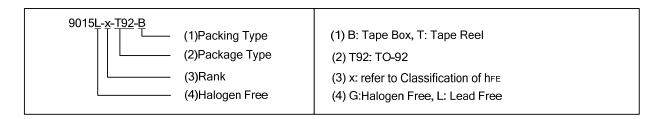
FEATURES

- * High total power dissipation. (450mW)
- * Excellent hFE linearity.
- * Complementary to UTC 9014



ORDERING INFORMATION

| Orderin | g Number | Dookogo | Packing | |
|---------------|---------------|---------|-----------|--|
| Lead Free | Halogen Free | Package | | |
| 9015L-x-T92-B | 9015G-x-T92-B | TO-92 | Tape Box | |
| 9015L-x-T92-K | 9015G-x-T92-K | TO-92 | Bulk | |
| 9015L-x-T92-T | 9015G-x-T92-T | TO-92 | Tape Reel | |



■ **ABSOLUTE MAXIMUM RATINGS** (Ta=25°C, unless otherwise specified)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|---------------------------|------------------|----------|------|
| Collector-Base Voltage | V_{CBO} | -50 | V |
| Collector-Emitter Voltage | V_{CEO} | -45 | V |
| Emitter-Base Voltage | V_{EBO} | -5 | V |
| Collector Current | Ic | -100 | mA |
| Collector Dissipation | Pc | 450 | mW |
| Junction Temperature | T_J | +150 | ç |
| Storage Temperature | T _{STG} | -55~+150 | ç |

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** (Ta=25°C, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|---|------|-------|-------|------|
| Collector-Base Breakdown Voltage | BV _{CBO} | $I_C = -100 \mu A, I_E = 0$ | -50 | | | V |
| Collector-Emitter Breakdown Voltage | BV _{CEO} | $I_{C} = -1 \text{mA}, I_{B} = 0$ | -45 | | | V |
| Emitter-Base Breakdown Voltage | BV_{EBO} | $I_E = -100 \mu A, I_C = 0$ | -5 | | | V |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | $I_C = -100 \text{mA}, I_B = -5 \text{mA}$ | | -0.2 | -0.7 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C = -100 \text{mA}, I_B = -5 \text{mA}$ | | -0.82 | -1.0 | V |
| Base-Emitter On Voltage | $V_{BE(on)}$ | $V_{CE} = -5V, I_{C} = -2mA$ | -0.6 | -0.65 | -0.75 | V |
| Collector Cutoff Current | I _{CBO} | $V_{CB} = -50V, I_{E} = 0$ | | | -50 | nA |
| Emitter Cutoff Current | I _{EBO} | $V_{EB} = -5V, I_{C} = 0$ | | | -100 | nA |
| DC Current Gain | h _{FE} | $V_{CE} = -5V$, $I_C = -1mA$ | 60 | 200 | 600 | |
| Output Capacitance | C_ob | $V_{CB} = -10V$, $I_E = 0$, $f = 1MHz$ | | 4.5 | 7.0 | рF |
| Current Gain-Bandwidth Product | f _T | $V_{CE} = -5V, I_{C} = -10mA$ | 100 | 190 | | MHz |
| Noise Figure | NF | $V_{CE} = -5V$, $I_{C} = -0.2$ mA $f = 1$ KHz, Rs = 1K Ω | | 0.7 | 10 | dB |

■ CLASSIFICATION OF h_{FF}

| RANK | A | В | С |
|-------|--------|---------|---------|
| RANGE | 60-150 | 100-300 | 200-600 |

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