

UTC2SB772L PNP EPITAXIAL SILICON TRANSISTOR

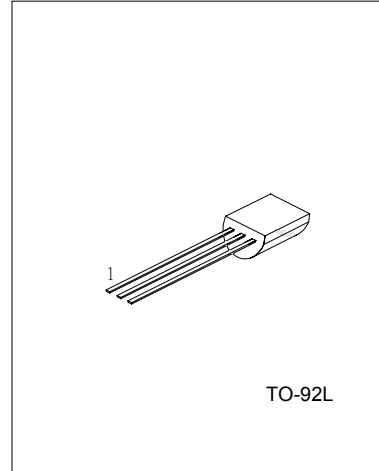
MEDIUM POWER LOW VOLTAGE TRANSISTOR

DESCRIPTION

The UTC 2SB772L is a medium power low voltage transistor, designed for audio power amplifier, DC-DC converter and voltage regulator.

FEATURES

- *High current output up to 3A
- *Low saturation voltage
- *Complement to 2SD882L



1:EMITTER 2:COLLECTOR 3:BASE

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

| PARAMETER | SYMBOL | VALUE | UNIT |
|---------------------------------|------------------|------------|------|
| Collector-Base Voltage | V _{CB0} | -40 | V |
| Collector-Emitter Voltage | V _{CEO} | -30 | V |
| Emitter-Base Voltage | V _{EB0} | -5 | V |
| Collector Dissipation(Ta=25°C) | P _c | 0.5 | W |
| Collector Current(DC) | I _c | -3 | A |
| Collector Current(PULSE) | I _c | -7 | A |
| Base Current | I _B | -0.6 | A |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{STG} | -55 ~ +150 | °C |

ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|--|-----|------|-------|------|
| Collector Cut-Off Current | I _{CB0} | V _{CB} =-30V, I _E =0 | | | -1000 | nA |
| Emitter Cut-Off Current | I _{EB0} | V _{EB} =-3V, I _c =0 | | | -1000 | nA |
| DC Current Gain(note 1) | h _{FE1} | V _{CE} =-2V, I _c =-20mA | 30 | 200 | | |
| | h _{FE2} | V _{CE} =-2V, I _c =-1A | 100 | 150 | 400 | |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | I _c =-2A, I _B =-0.2A | | -0.3 | -0.5 | V |
| Base-Emitter Saturation Voltage | V _{BE(sat)} | I _c =-2A, I _B =-0.2A | | -1.0 | -2.0 | V |
| Current Gain Bandwidth Product | f _t | V _{CE} =-5V, I _c =-0.1A | | 80 | | MHz |
| Output Capacitance | C _{ob} | V _{CB} =-10V, I _E =0, f=1MHz | | 45 | | pF |

Note 1:Pulse test:PW<300μs,Duty Cycle<2%

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CLASSIFICATION OF hFE2

| RANK | Q | P | E |
|-------|---------|---------|---------|
| RANGE | 100-200 | 160-320 | 200-400 |

TYPICAL PERFORMANCE CHARACTERISTICS

Fig.1 Static characteristics

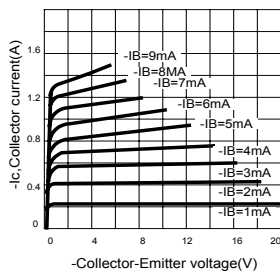


Fig.2 Derating curve of safe operating areas

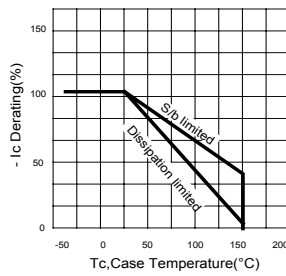


Fig.3 Power Derating

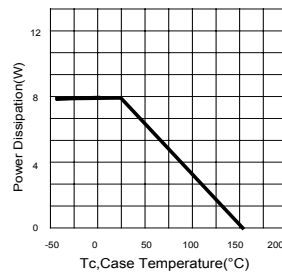


Fig.4 Collector Output capacitance

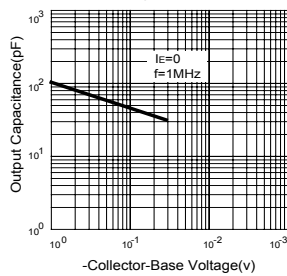


Fig.5 Current gain-bandwidth product

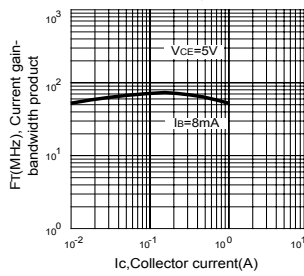


Fig.6 Safe operating area

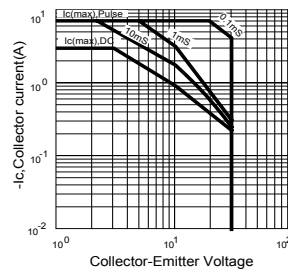


Fig.7 DC current gain

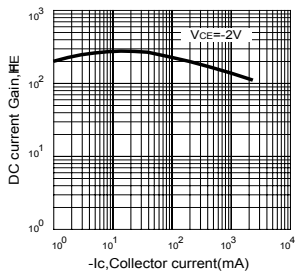
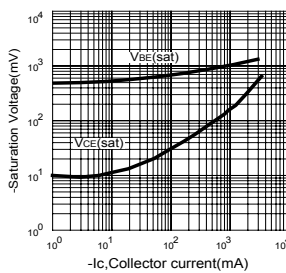


Fig.8 Saturation Voltage



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