

SEMICONDUCTOR TECHNICAL DATA

KTC3198L EPITAXIAL PLANAR NPN TRANSISTOR

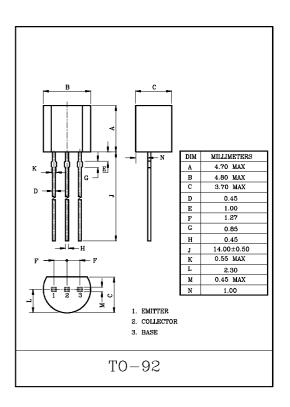
LOW NOISE AMPLIFIER APPLICATION.

FEATURES

- · Excellent Linearity of hFE
 - : $h_{\rm FE}(2)\text{=}100({\rm Typ.})$ at $V_{\rm CE}\text{=}6V,~I_{\rm C}\text{=}150mA$
 - : $h_{FE}(I_C=0.1mA)/h_{FE}(I_C=2mA)=0.95(Typ.)$.
- · Low Noise: NF=0.2dB(Typ.) at (f=1kHz).
- · Complementary to KTA1266L. (O,Y,GR class).

MAXIMUM RATINGS (Ta=25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT | |
|-----------------------------|---------------------|-----------|-----------------|--|
| Collector-Base Voltage | V_{CBO} | 60 | V | |
| Collector-Emitter Voltage | V _{CEO} 50 | | V | |
| Emitter-Base Voltage | $ m V_{EBO}$ | 5 | V | |
| Collector Current | $I_{\rm C}$ | 150 | mA | |
| Emitter Current | I_{E} | -150 | mA | |
| Collector Power Dissipation | Pc | 625 | mW | |
| Junction Temperature | Tj | 150 | $^{\mathbb{C}}$ | |
| Storage Temperature Range | T_{stg} | -55 ~ 150 | ${\mathbb C}$ | |



ELECTRICAL CHARACTERISTICS (Ta=25°C)

| СНАRAC | TERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT | |
|-----------------------|-------------------|-------------------------------|---|------|------|------|------|--|
| Collector Cut-off | Current | I_{CBO} | V_{CB} =60V, I_{E} =0 | - | - | 0.1 | μΑ | |
| Emitter Cut-off (| Current | I_{EBO} | $V_{\rm EB}$ =5V, $I_{\rm C}$ =0 | - | - | 0.1 | μΑ | |
| DC Current Gain | | h _{FE} (1) (Note) | V _{CE} =6V, I _C =2mA | 70 | - | 700 | | |
| | | h _{FE} (2) | V_{CE} =6V, I_{C} =150mA | 25 | 100 | - | | |
| Saturation Voltage | Collector-Emitter | V _{CE((sat.)} | I _C =100mA, I _B =10mA | - | 0.1 | 0.25 | V | |
| | Base-Emitter | Vasc(sat) | I _C =100mA, I _B =10mA | - | - | 1.0 | | |
| Transition Freque | ency | f_{T} | V_{CE} =10V, I_{C} =10mA | 80 | - | - | MHz | |
| Collector Output | Capacitance | Cob | V_{CB} =10V, I_{E} =0, f=1MHz | - | 2.0 | 3.0 | рF | |
| Base Intrinsic Re | sistance | rbb′ | V_{CB} =10V, I_{E} =-1mA, f=30MHz | - | 50 | - | Ω | |
| Noise Figure | | NF(1) | V _{CE} =6V, I _C =0.1mA, Rg=10kΩ, f=100Hz | - | 0.5 | 6.0 | dB | |
| | | NF(2) | V_{CE} =6V, I_{C} =0.1mA Rg=10k Ω , f=1kHz | _ | 0.2 | 3.0 | | |

Note) $h_{EE}(1)$ Classification O: 70-140, Y: 120-240, GR: 200-400, BL: 300-700

This datasheet has been downloaded from:

www. Data sheet Catalog.com

Datasheets for electronic components.