

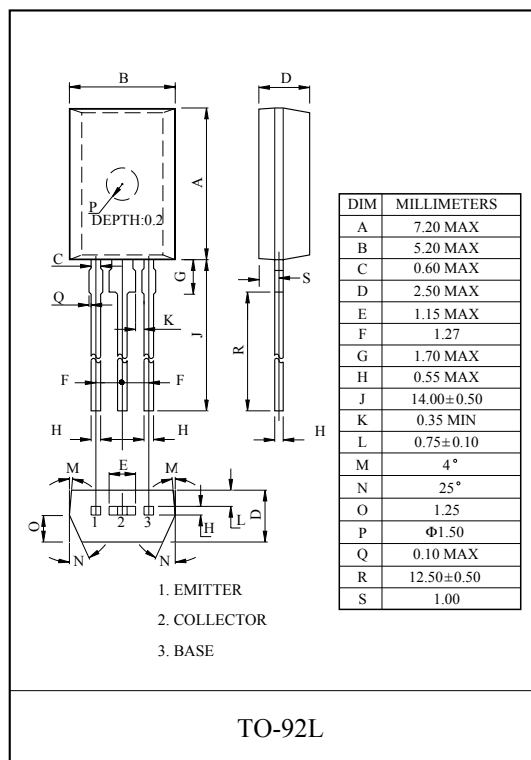
POWER AMPLIFIER APPLICATIONS.  
POWER SWITCHING APPLICATIONS.

## FEATURES

- Low Collector Saturation Voltage  
:  $V_{CE(sat)}=0.5V(\text{Max.})$  ( $I_C=1A$ )
- High Speed Switching Time :  $t_{stg}=1.0\mu S(\text{Typ.})$
- Complementary to KTA1281.

## MAXIMUM RATING ( $T_a=25^\circ C$ )

| CHARACTERISTIC              | SYMBOL    | RATING    | UNIT       |
|-----------------------------|-----------|-----------|------------|
| Collector-Base Voltage      | $V_{CBO}$ | 50        | V          |
| Collector-Emitter Voltage   | $V_{CEO}$ | 50        | V          |
| Emitter-Base Voltage        | $V_{EBO}$ | 5         | V          |
| Collector Current           | $I_C$     | 2         | A          |
| Emitter Current             | $I_E$     | -2        | A          |
| Collector Power Dissipation | $P_C$     | 1         | W          |
| Junction Temperature        | $T_j$     | 150       | $^\circ C$ |
| Storage Temperature Range   | $T_{stg}$ | -55 ~ 150 | $^\circ C$ |



## ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )

| CHARACTERISTIC                       |                    | SYMBOL        | TEST CONDITION                                                               | MIN. | TYP. | MAX. | UNIT    |
|--------------------------------------|--------------------|---------------|------------------------------------------------------------------------------|------|------|------|---------|
| Collector Cut-off Current            |                    | $I_{CBO}$     | $V_{CB}=50V, I_E=0$                                                          | -    | -    | 0.1  | $\mu A$ |
| Emitter Cut-off Current              |                    | $I_{EBO}$     | $V_{EB}=5V, I_C=0$                                                           | -    | -    | 0.1  | $\mu A$ |
| Collector-Emitter Breakdown Voltage  |                    | $V_{(BR)CEO}$ | $I_C=10mA, I_B=0$                                                            | 50   | -    | -    | V       |
| Emitter-Base Breakdown Voltage       |                    | $V_{(BR)BEO}$ | $I_C=10mA, I_B=0$                                                            | 5    | -    | -    | V       |
| DC Current Gain                      | $h_{FE}(1)$ (Note) |               | $V_{CE}=2V, I_C=0.5A$ (Note)                                                 | 70   | -    | 240  |         |
|                                      | $h_{FE}(2)$ (Note) |               | $V_{CE}=2V, I_C=1.5A$                                                        | 40   | -    | -    |         |
| Collector-Emitter Saturation Voltage |                    | $V_{CE(sat)}$ | $I_C=1A, I_B=0.05A$                                                          | -    | -    | 0.5  | V       |
| Base-Emitter Saturation Voltage      |                    | $V_{BE(sat)}$ | $I_C=1A, I_B=0.05A$                                                          | -    | -    | 1.2  | V       |
| Transition Frequency                 |                    | $f_T$         | $V_{CE}=2V, I_C=0.5A$                                                        | -    | 100  | -    | MHz     |
| Collector Output Capacitance         |                    | $C_{ob}$      | $V_{CB}=10V, I_E=0, f=1MHz$                                                  | -    | 30   | -    | pF      |
| Switching Time                       | Turn-on Time       | $t_{on}$      | <p><math>I_{B1}=I_{B2}=0.05A</math><br/>DUTY CYCLE <math>\leq 1\%</math></p> | -    | 0.1  | -    | $\mu S$ |
|                                      | Storage Time       | $t_{stg}$     |                                                                              | -    | 1.0  | -    |         |
|                                      | Fall Time          | $t_f$         |                                                                              | -    | 0.1  | -    |         |

Note :  $h_{FE}$  Classification 0:70 ~ 140, Y:120 ~ 240

## STATIC CHARACTERISTICS

