

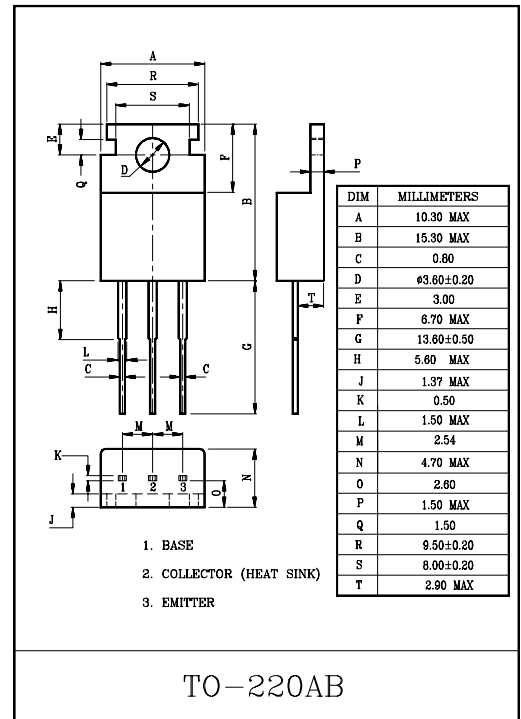
COLOR TV CHROMA OUTPUT APPLICATION.

#### FEATURES

- High Voltage :  $V_{CE0}=300V$ .
- Small Collector Output Capacitance :  $C_{ob}=5.0pF(Typ.)$ .
- High Transition Frequency :  $f_T=100MHz(Typ.)$ .

#### MAXIMUM RATINGS ( $T_a=25^{\circ}C$ )

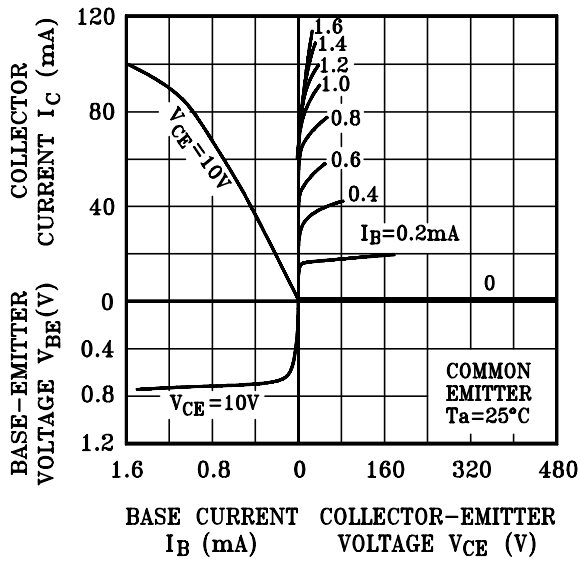
| CHARACTERISTIC              | SYMBOL            | RATING  | UNIT        |
|-----------------------------|-------------------|---------|-------------|
| Collector-Base Voltage      | $V_{CBO}$         | 300     | V           |
| Collector-Emitter Voltage   | $V_{CEO}$         | 300     | V           |
| Emitter-Base Voltage        | $V_{EBO}$         | 5       | V           |
| Collector Current           | $I_C$             | 150     | mA          |
| Emitter Current             | $I_E$             | -150    | mA          |
| Collector Power Dissipation | $T_a=25^{\circ}C$ | 2       | W           |
|                             | $T_c=25^{\circ}C$ | 12.5    |             |
| Junction Temperature        | $T_j$             | 150     | $^{\circ}C$ |
| Storage Temperature Range   | $T_{stg}$         | -55~150 | $^{\circ}C$ |



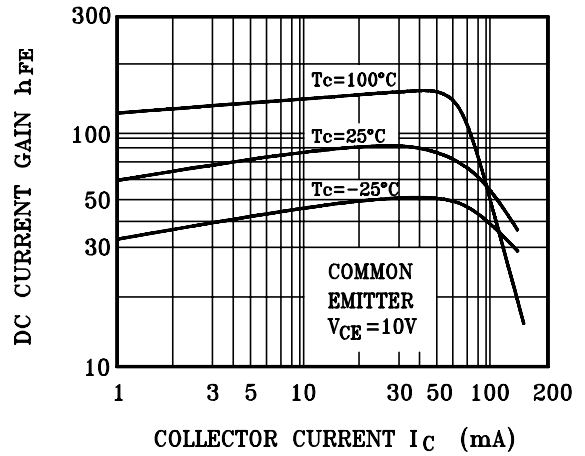
#### ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}C$ )

| CHARACTERISTIC                       | SYMBOL        | TEST CONDITION              | MIN. | TYP. | MAX. | UNIT    |
|--------------------------------------|---------------|-----------------------------|------|------|------|---------|
| Collector Cut-off Current            | $I_{CBO}$     | $V_{CB}=100V, I_E=0$        | -    | -    | 0.1  | $\mu A$ |
| Emitter Cut-off Current              | $I_{EBO}$     | $V_{EB}=5V, I_C=0$          | -    | -    | 1.0  | $\mu A$ |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$ | $I_C=5mA, I_B=0$            | 300  | -    | -    | V       |
| DC Current Gain                      | $h_{FE}$      | $V_{CE}=10V, I_C=50mA$      | 40   | -    | 170  |         |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=100mA, I_B=20mA$       | -    | -    | 1.0  | V       |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C=100mA, I_B=20mA$       | -    | -    | 1.2  | V       |
| Transition Frequency                 | $f_T$         | $V_{CE}=10V, I_C=30mA$      | 40   | 100  | -    | MHz     |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB}=50V, I_E=0, f=1MHz$ | -    | 5.0  | 6.5  | pF      |

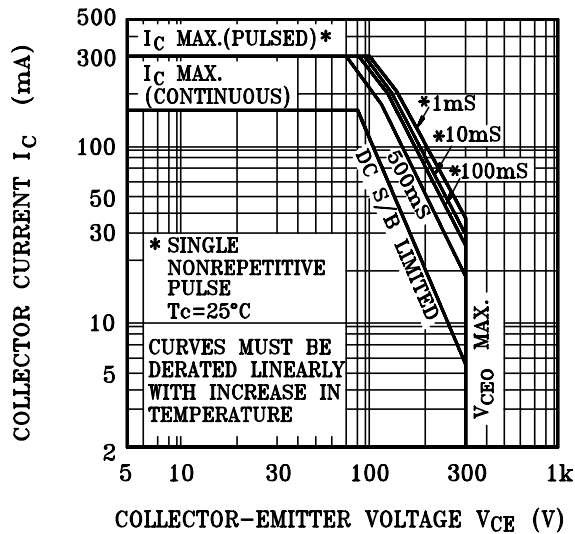
## STATIC CHARACTERISTICS



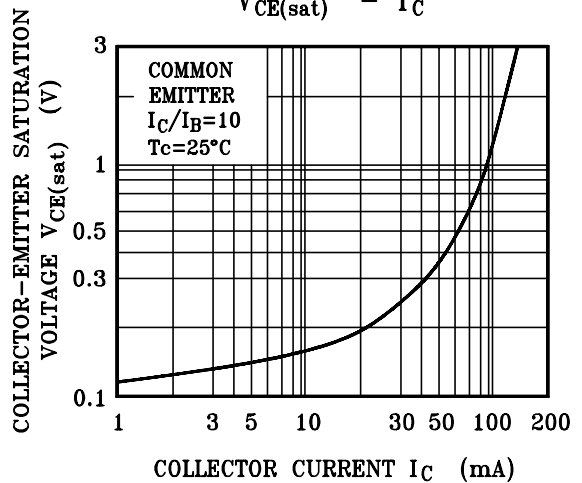
## $h_{FE} - I_C$



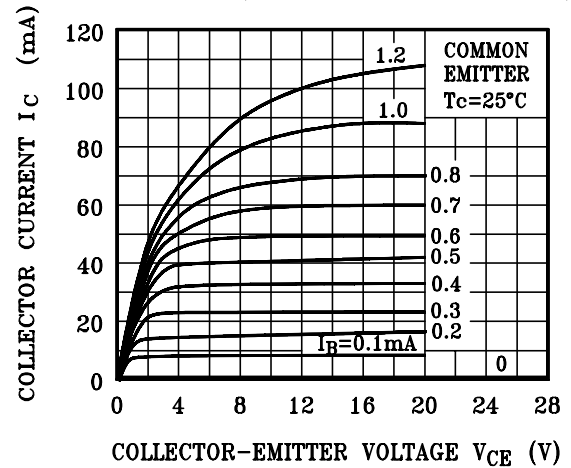
## SAFE OPERATING AREA



## $V_{CE(sat)} - I_C$



## $I_C - V_{CE}$ (LOW VOLTAGE REGION)



# KTC3208

