

GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

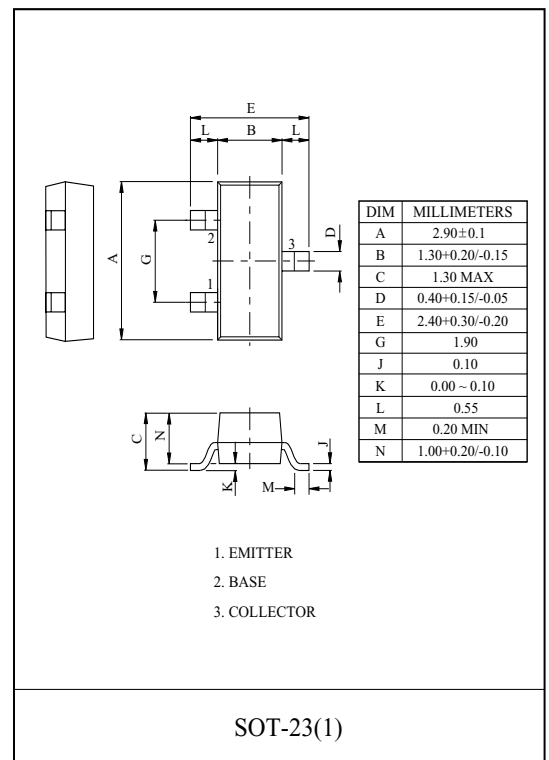
## FEATURES

- Excellent  $h_{FE}$  Linearity  
:  $h_{FE}(I_C=0.1mA)/h_{FE}(I_C=2mA)=0.95(Typ.)$ .
- Complementary to KTC9015SC.

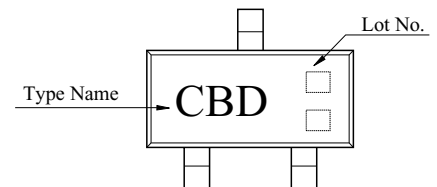
MAXIMUM RATING ( $T_a=25^\circ C$ )

| CHARACTERISTIC              | SYMBOL    | RATING    | UNIT |
|-----------------------------|-----------|-----------|------|
| Collector-Base Voltage      | $V_{CBO}$ | 80        | V    |
| Collector-Emitter Voltage   | $V_{CEO}$ | 50        | V    |
| Emitter-Base Voltage        | $V_{EBO}$ | 8         | V    |
| Collector Current           | $I_C$     | 100       | mA   |
| Collector Power Dissipation | $P_C^*$   | 350       | mW   |
| Junction Temperature        | $T_j$     | 150       |      |
| Storage Temperature Range   | $T_{stg}$ | -55 ~ 150 |      |

\*  $P_C$  : Package Mounted On 99.5% Alumina ( $10 \times 8 \times 0.6mm$ )



## Marking

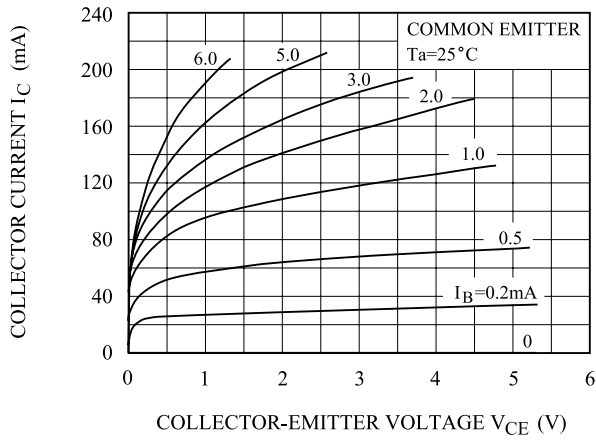
ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )

| CHARACTERISTIC                       | SYMBOL          | TEST CONDITION                 | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-----------------|--------------------------------|------|------|------|------|
| Collector-Base Breakdown Voltage     | $V_{(BR)CBO}$   | $I_C=0.05mA, I_E=0$            | 80   | -    | -    | V    |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$   | $I_C=1mA, I_B=0$               | 50   | -    | -    | V    |
| Emitter-Base Breakdown Voltage       | $V_{(BR)EBO}$   | $I_E=0.05mA, I_C=0$            | 8    | -    | -    | V    |
| Collector Cut-off Current            | $I_{CBO}$       | $V_{CB}=55V, I_E=0$            | -    | -    | 0.1  | uA   |
| Emitter Cut-off Current              | $I_{EBO}$       | $V_{EB}=5V, I_C=0$             | -    | -    | 0.1  | uA   |
| DC Current Gain                      | $h_{FE}$ (Note) | $V_{CE}=5V, I_C=1mA$           | 200  | -    | 600  |      |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$   | $I_C=100mA, I_B=5mA$           | -    | -    | 0.3  | V    |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$   | $I_C=100mA, I_B=5mA$           | -    | -    | 1    | V    |
| Transition Frequency                 | $f_T$           | $V_{CE}=5V, I_C=10mA, f=30MHz$ | 150  | -    | -    | MHz  |

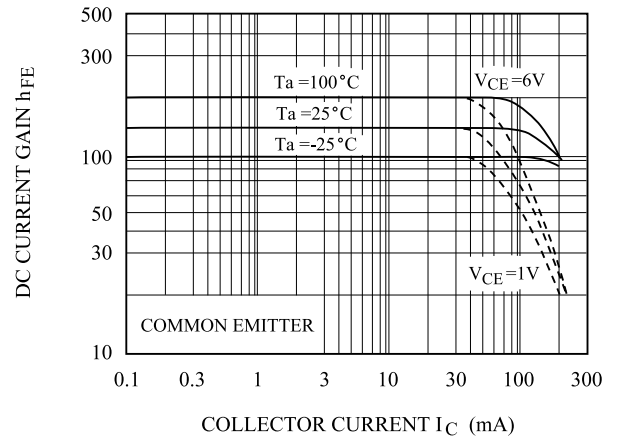
Note) :  $h_{FE}$  Classification C:200~600

# KTC9014SC

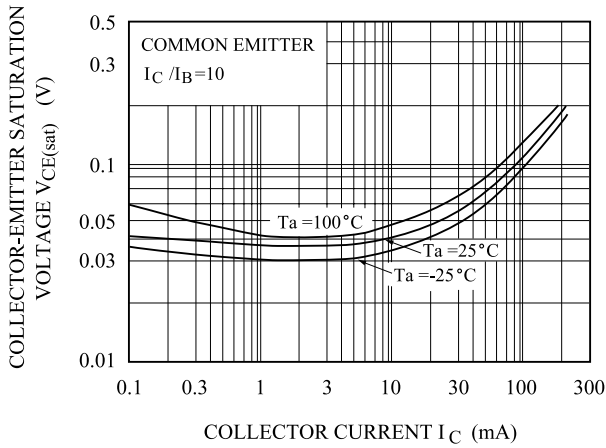
$I_C - V_{CE}$   
(LOW VOLTAGE REGION)



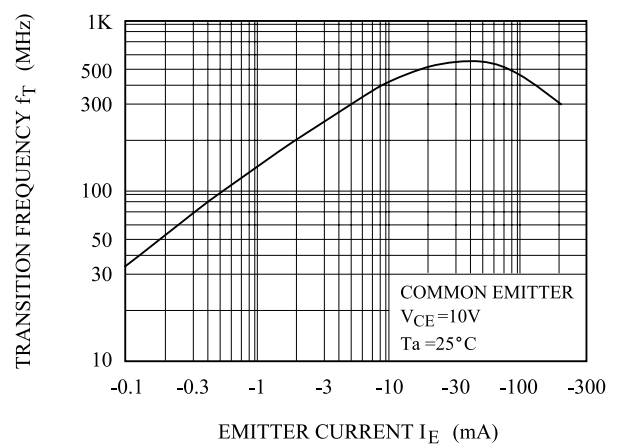
$h_{FE} - I_C$



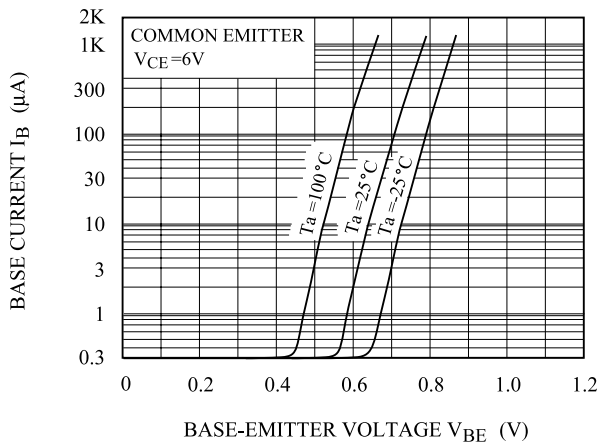
$V_{CE(sat)} - I_C$



$f_T - I_E$



$I_B - V_{BE}$



$P_c - T_a$

