

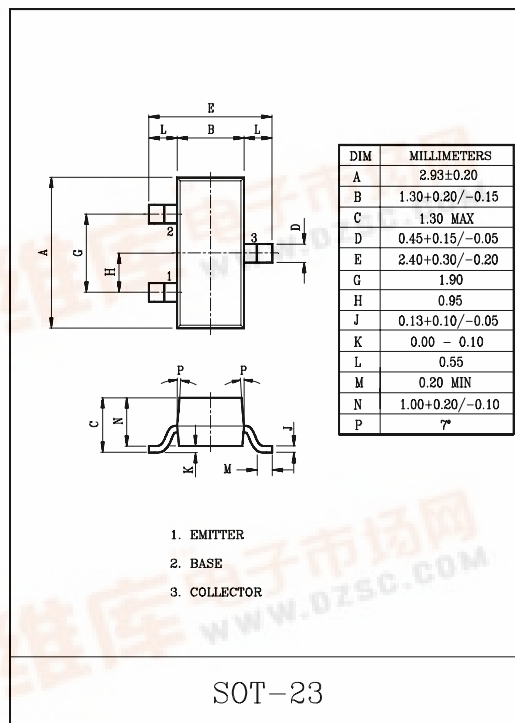
FOR MUTING AND SWITCHING APPLICATION.

### FEATURES

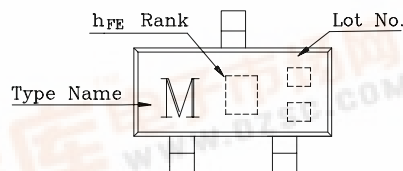
- High Emitter-Base Voltage :  $V_{EBO}=25V(\text{Min.})$
- High Reverse  $h_{FE}$   
: Reverse  $h_{FE}=150(\text{Typ.})$  ( $V_{CE}=-2V, I_C=-2mA$ )
- Low on Resistance :  $R_{ON}=1\Omega(\text{Typ.})$ , ( $I_B=5mA$ )

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

| CHARACTERISTIC              | SYMBOL    | RATING  | UNIT       |
|-----------------------------|-----------|---------|------------|
| Collector-Base Voltage      | $V_{CBO}$ | 50      | V          |
| Collector-Emitter Voltage   | $V_{CEO}$ | 20      | V          |
| Emitter-Base Voltage        | $V_{EBO}$ | 25      | V          |
| Collector Current           | $I_C$     | 300     | mA         |
| Base Current                | $I_B$     | 60      | mA         |
| Collector Power Dissipation | $P_C$     | 150     | mW         |
| Junction Temperature        | $T_j$     | 125     | $^\circ C$ |
| Storage Temperature Range   | $T_{stg}$ | -55~125 | $^\circ C$ |



### Marking



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

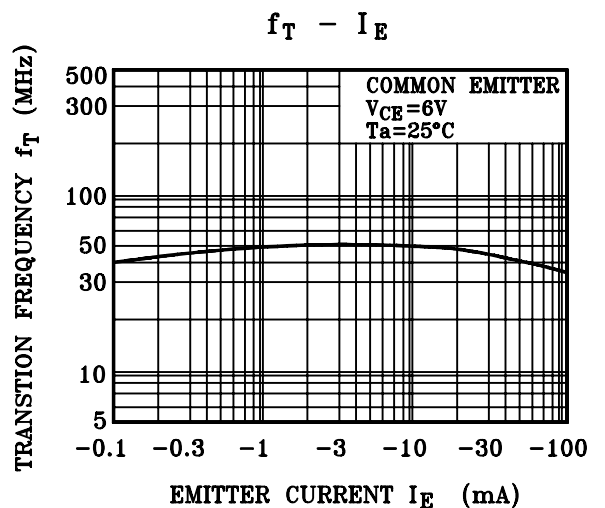
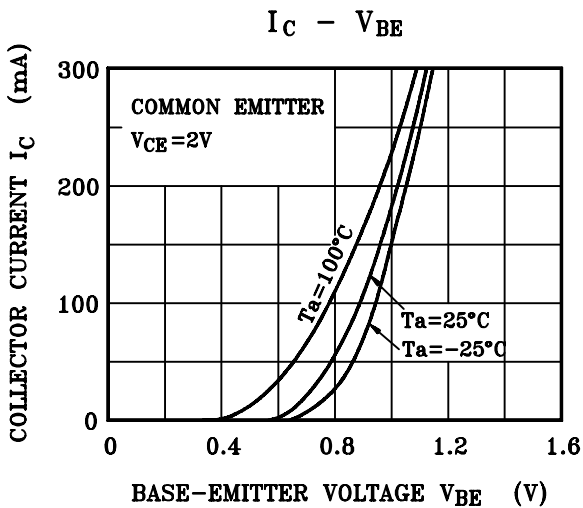
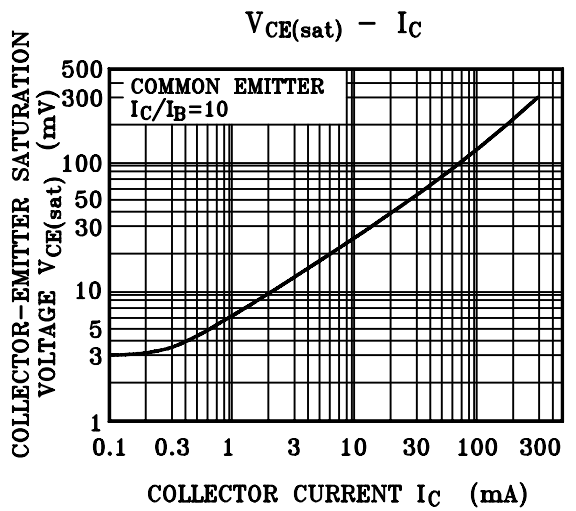
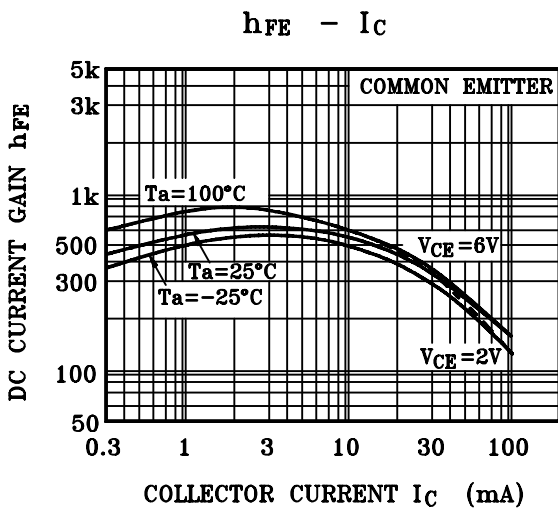
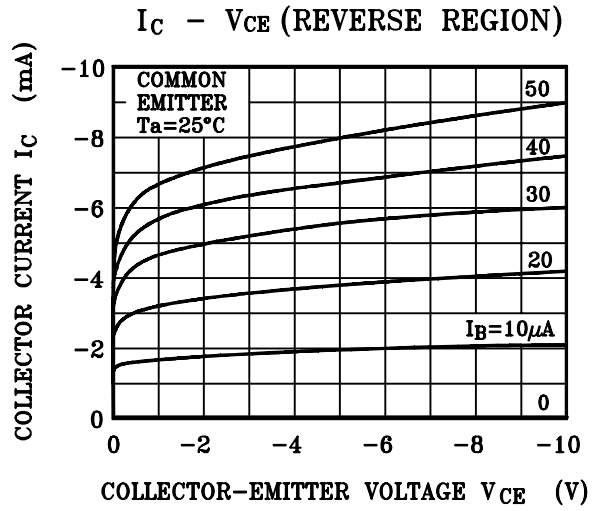
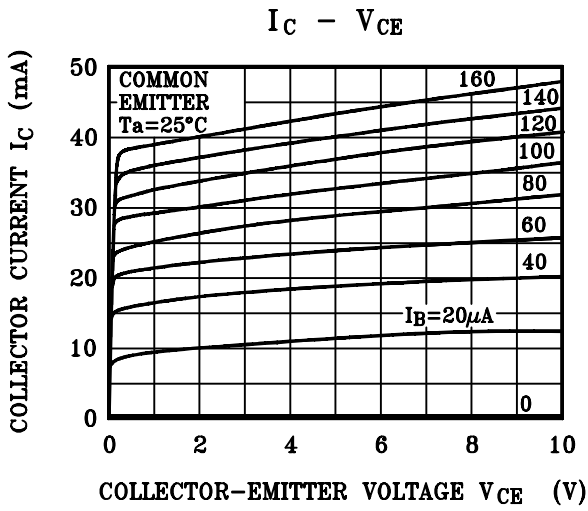
| CHARACTERISTIC                       | SYMBOL        | TEST CONDITION              | MIN. | TYP.  | MAX. | UNIT    |
|--------------------------------------|---------------|-----------------------------|------|-------|------|---------|
| Collector Cut-off Current            | $I_{CBO}$     | $V_{CB}=50V, I_E=0$         | -    | -     | 0.1  | $\mu A$ |
| Emitter Cut-off Current              | $I_{EBO}$     | $V_{EB}=25V, I_C=0$         | -    | -     | 0.1  | $\mu A$ |
| DC Current Gain (Note)               | $h_{FE}$      | $V_{CE}=2V, I_C=4mA$        | 200  | -     | 1200 |         |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=30mA, I_B=3mA$         | -    | 0.042 | 0.3  | V       |
| Base-Emitter Voltage                 | $V_{BE}$      | $V_{CE}=2V, I_C=4mA$        | -    | 0.61  | -    | V       |
| Transition Frequency                 | $f_T$         | $V_{CE}=6V, I_C=4mA$        | -    | 30    | -    | MHz     |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB}=10V, I_E=0, f=1MHz$ | -    | 4.8   | 7    | pF      |
| Switching Time                       | Turn-on Time  | $t_{ON}$                    | -    | 160   | -    | nS      |
|                                      | Storage Time  | $t_{stg}$                   | -    | 500   | -    |         |
|                                      | Fall Time     | $t_f$                       | -    | 130   | -    |         |

DUTY CYCLE ≤ 2%

Note: 1. Imp Classification A: 200~700, B: 350~1200



# KTC2875



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