

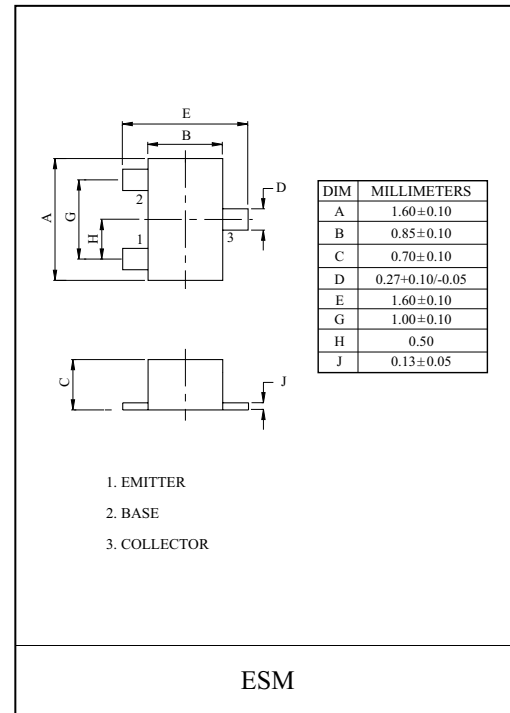
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

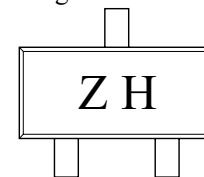
- Low Leakage Current
: $I_{CEX} = -50\text{nA}(\text{Max.})$; $V_{CE} = -30\text{V}$, $V_{EB} = -0.5\text{V}$.
- Low Saturation Voltage
: $V_{CE(\text{sat})} = -0.4\text{V}(\text{Max.})$; $I_C = -150\text{mA}$, $I_B = -15\text{mA}$.
- Complementary to the KTN2222AE.

MAXIMUM RATING (Ta=25 °C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|--|------------------|-----------|------|
| Collector-Base Voltage | V_{CBO} | -60 | V |
| Collector-Emitter Voltage | V_{CEO} | -60 | V |
| Emitter-Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -600 | mA |
| Collector Power Dissipation (Ta=25 °C) | P_C | 100 | mW |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature Range | T_{stg} | -55 ~ 150 | °C |



Marking

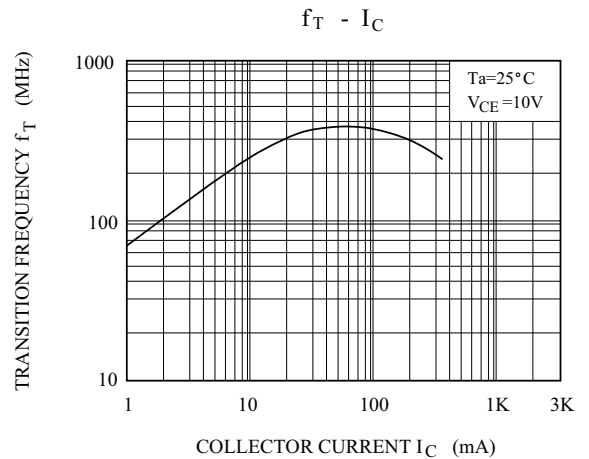
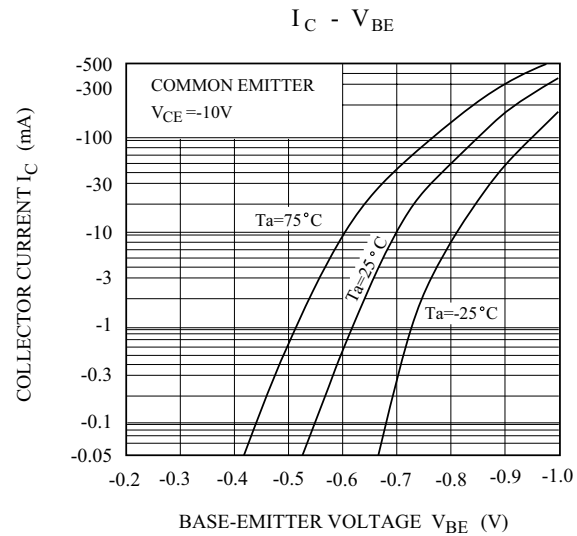
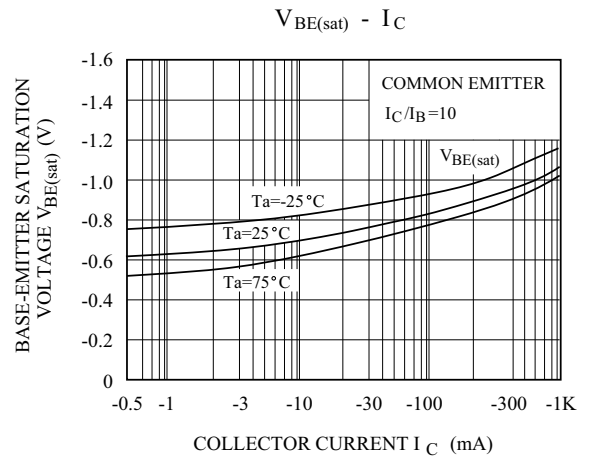
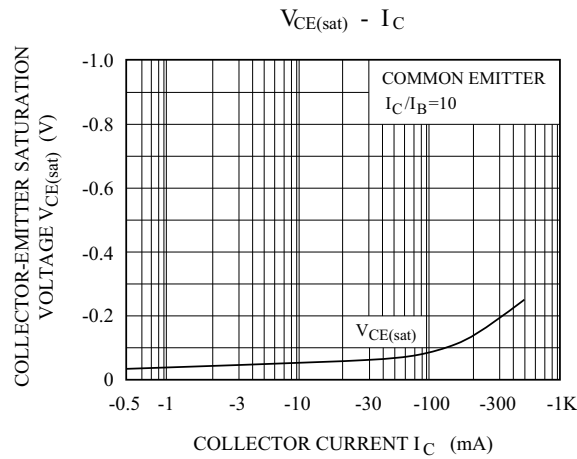
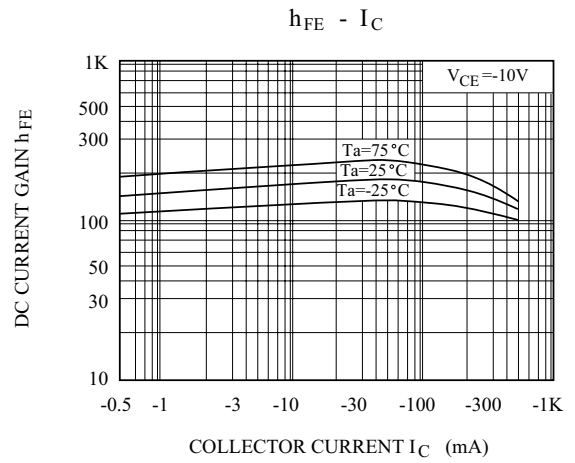
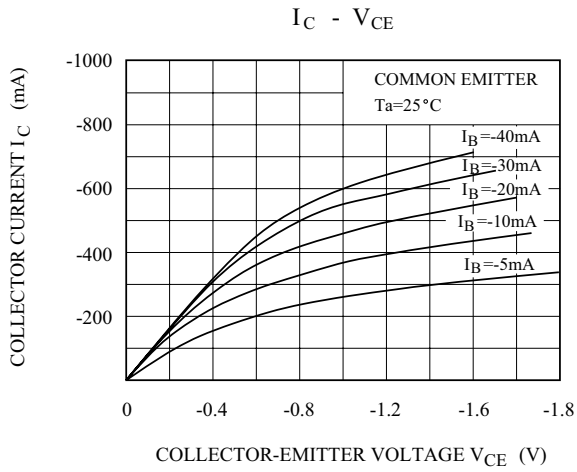


KTN2907AE

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--|----------------|---------------------------|------------------------------------|------|------|------|------|
| Collector Cut-off Current | | I_{CEX} | $V_{CE}=-30V, V_{EB}=-0.5V$ | - | - | -50 | nA |
| Collector Cut-off Current | | I_{CBO} | $V_{CB}=-50V, I_E=0$ | - | - | -10 | nA |
| Collector-Base Breakdown Voltage | | $V_{(BR)CBO}$ | $I_C=-10\mu A, I_E=0$ | -60 | - | - | V |
| Collector-Emitter Breakdown Voltage * | | $V_{(BR)CEO}$ | $I_C=-10mA, I_B=0$ | -60 | - | - | V |
| Emitter-Base Breakdown Voltage | | $V_{(BR)EBO}$ | $I_E=-10\mu A, I_C=0$ | -5 | - | - | V |
| DC Current Gain * | $h_{FE}(1)$ | $I_C=-0.1mA, V_{CE}=-10V$ | 75 | - | - | | |
| | $h_{FE}(2)$ | $I_C=-1.0mA, V_{CE}=-10V$ | 100 | - | - | | |
| | $h_{FE}(3)$ | $I_C=-10mA, V_{CE}=-10V$ | 100 | - | - | | |
| | $h_{FE}(4)$ | $I_C=-150mA, V_{CE}=-10V$ | 100 | - | 300 | | |
| | $h_{FE}(5)$ | $I_C=-500mA, V_{CE}=-10V$ | 50 | - | - | | |
| Collector-Emitter Saturation Voltage * | $V_{CE(sat)1}$ | $I_C=-150mA, I_B=-15mA$ | - | - | -0.4 | V | |
| | $V_{CE(sat)2}$ | $I_C=-500mA, I_B=-50mA$ | - | - | -1.6 | | |
| Base-Emitter Saturation Voltage * | $V_{BE(sat)1}$ | $I_C=-150mA, I_B=-15mA$ | - | - | -1.3 | V | |
| | $V_{BE(sat)2}$ | $I_C=-500mA, I_B=-50mA$ | - | - | -2.6 | | |
| Transition Frequency | | f_T | $V_{CE}=-20V, I_C=-50mA, f=100MHz$ | 200 | - | - | MHz |
| Collector Output Capacitance | | C_{ob} | $V_{CB}=-10V, I_E=0, f=1MHz$ | - | - | 8 | pF |
| Input Capacitance | | C_{ib} | $V_{BE}=-2V, I_C=0, f=1.0MHz$ | - | - | 30 | pF |
| Switching Time | Delay Time | t_d | $V_{CC}=-30V, I_C=-150mA$ | - | - | 10 | nS |
| | Rise Time | t_r | $I_{B1}=-15mA$ | - | - | 40 | |
| | Storage Time | t_{stg} | $V_{CC}=-6V, I_C=-150mA$ | - | - | 80 | |
| | Fall Time | t_f | $I_{B1}=-I_{B2}=-15mA$ | - | - | 30 | |

* Pulse Test : Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$.



KTN2907AE

