

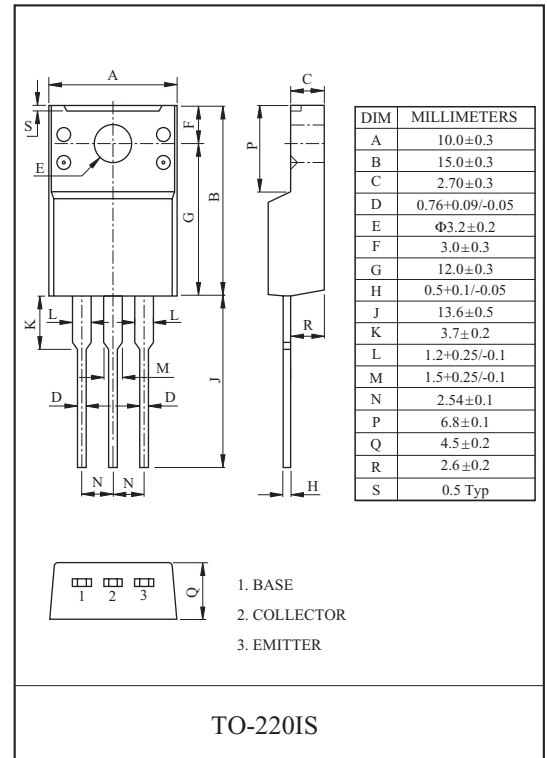
GENERAL PURPOSE APPLICATION.

FEATURES

- Low Collector Saturation Voltage
: $V_{CE(sat)}=1.0V(\text{Max.})$ at $I_C=2A, I_B=0.2A$.
- Complementary to KTA1046.

MAXIMUM RATING (Ta=25)

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|-----------------------------|-------|-----------|---------|------|
| Collector-Base Voltage | | V_{CBO} | 60 | V |
| Collector-Emitter Voltage | | V_{CEO} | 60 | V |
| Emitter-Base Voltage | | V_{EBO} | 7 | V |
| Collector Current | | I_C | 3 | A |
| Base Current | | I_B | 0.5 | A |
| Collector Power Dissipation | Ta=25 | P_C | 2 | W |
| | Tc=25 | | 20 | |
| Junction Temperature | | T_j | 150 | |
| Storage Temperature Range | | T_{stg} | -55 150 | |

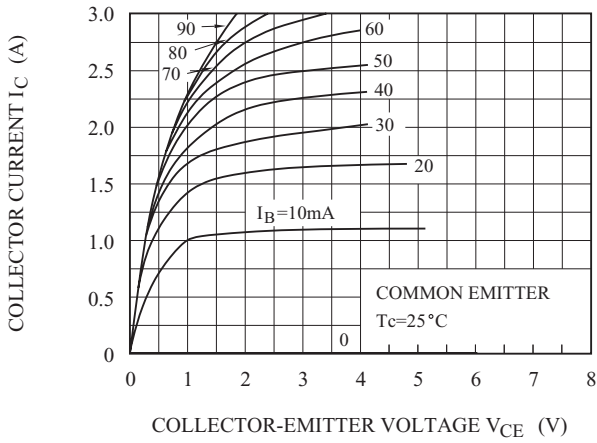


ELECTRICAL CHARACTERISTICS (Ta=25)

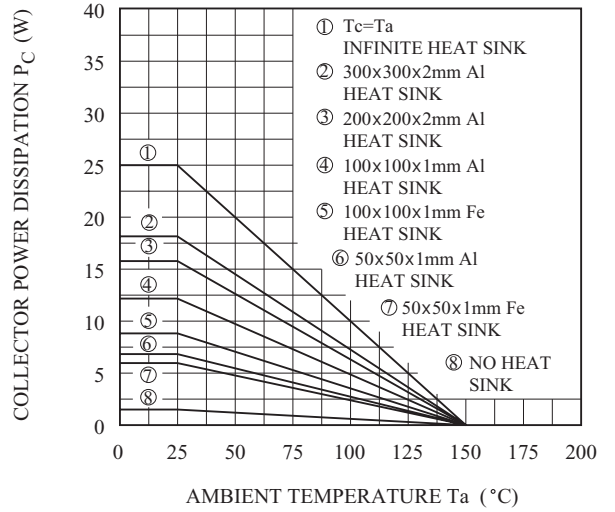
| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|--------------|-----------------|--|------|------|------|------|
| Collector Cut-off Current | | I_{CBO} | $V_{CB}=60V, I_E=0$ | - | - | 1 | μA |
| Emitter Cut-off Current | | I_{EBO} | $V_{EB}=7V, I_C=0$ | - | - | 1 | μA |
| Collector-Emitter Breakdown Voltage | | $V_{(BR)CEO}$ | $I_C=50mA, I_B=0$ | 60 | - | - | V |
| DC Current Gain | | h_{FE} (Note) | $V_{CE}=5V, I_C=0.5A$ | 100 | - | 300 | |
| Collector Emitter Saturation Voltage | | $V_{CE(sat)}$ | $I_C=2A, I_B=0.2A$ | - | 0.25 | 1.0 | V |
| Base-Emitter Voltage | | V_{BE} | $V_{CE}=5V, I_C=0.5A$ | - | 0.7 | 1.0 | V |
| Transition Frequency | | f_T | $V_{CE}=5V, I_C=0.5A$ | - | 30 | - | MHz |
| Collector Output Capacitance | | C_{ob} | $V_{CB}=10V, I_E=0, f=1MHz$ | - | 35 | - | pF |
| Switching Time | Turn-on Time | t_{on} | <p>$I_{B1}=I_{B2}=0.2A$ DUTY CYCLE ≤ 1%</p> | - | 0.65 | - | μs |
| | Storage Time | t_{stg} | | - | 1.3 | - | |
| | Fall Time | t_f | | - | 0.65 | - | |

Note : h_{FE} Classification Y:100 200, GR:150 300

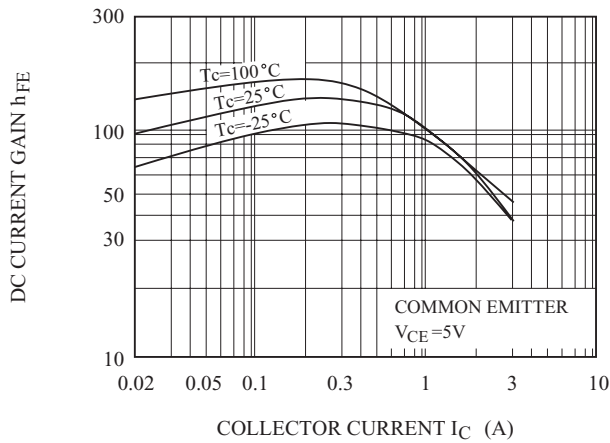
$I_C - V_{CE}$



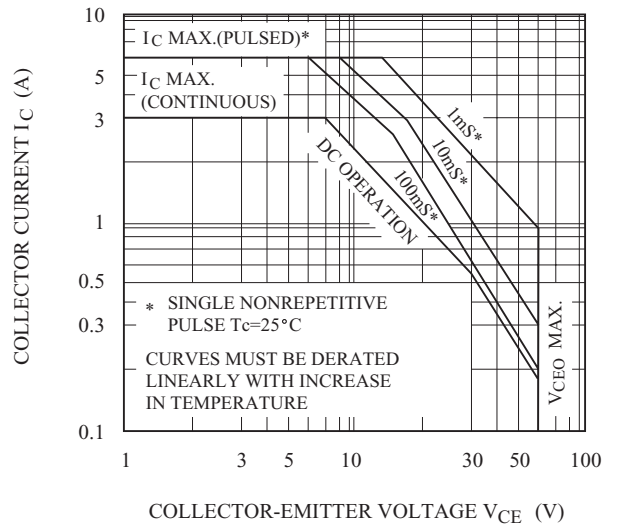
$P_c - T_a$



$h_{FE} - I_C$



SAFE OPERATING AREA



$V_{CE(sat)} - I_C$

