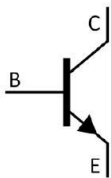


Silicon NPN transistor in a TO-220F Plastic Package.

Good Linearity of  $h_{FE}$ , complementary pair with KTB1368.

General Purpose Application.

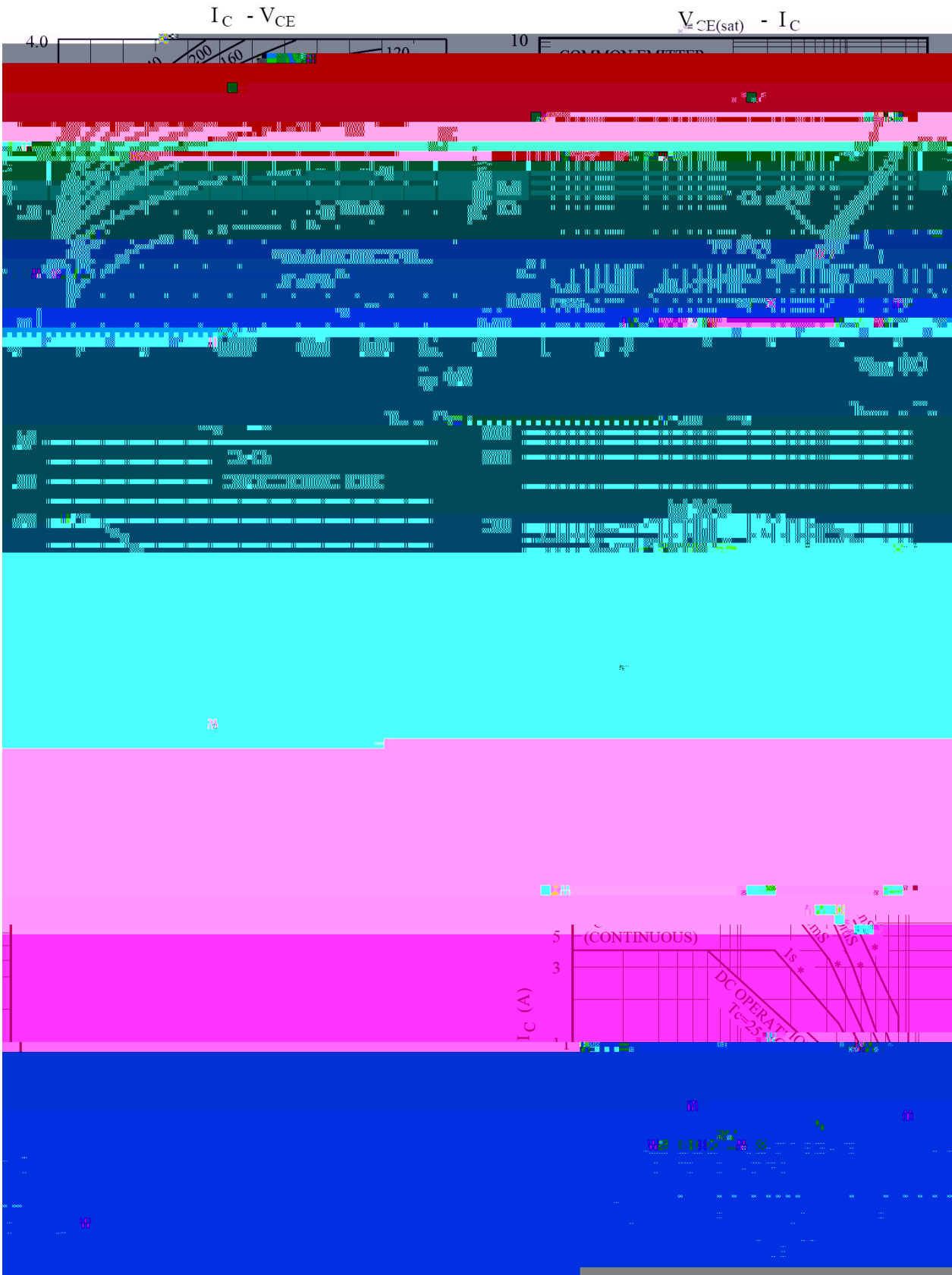


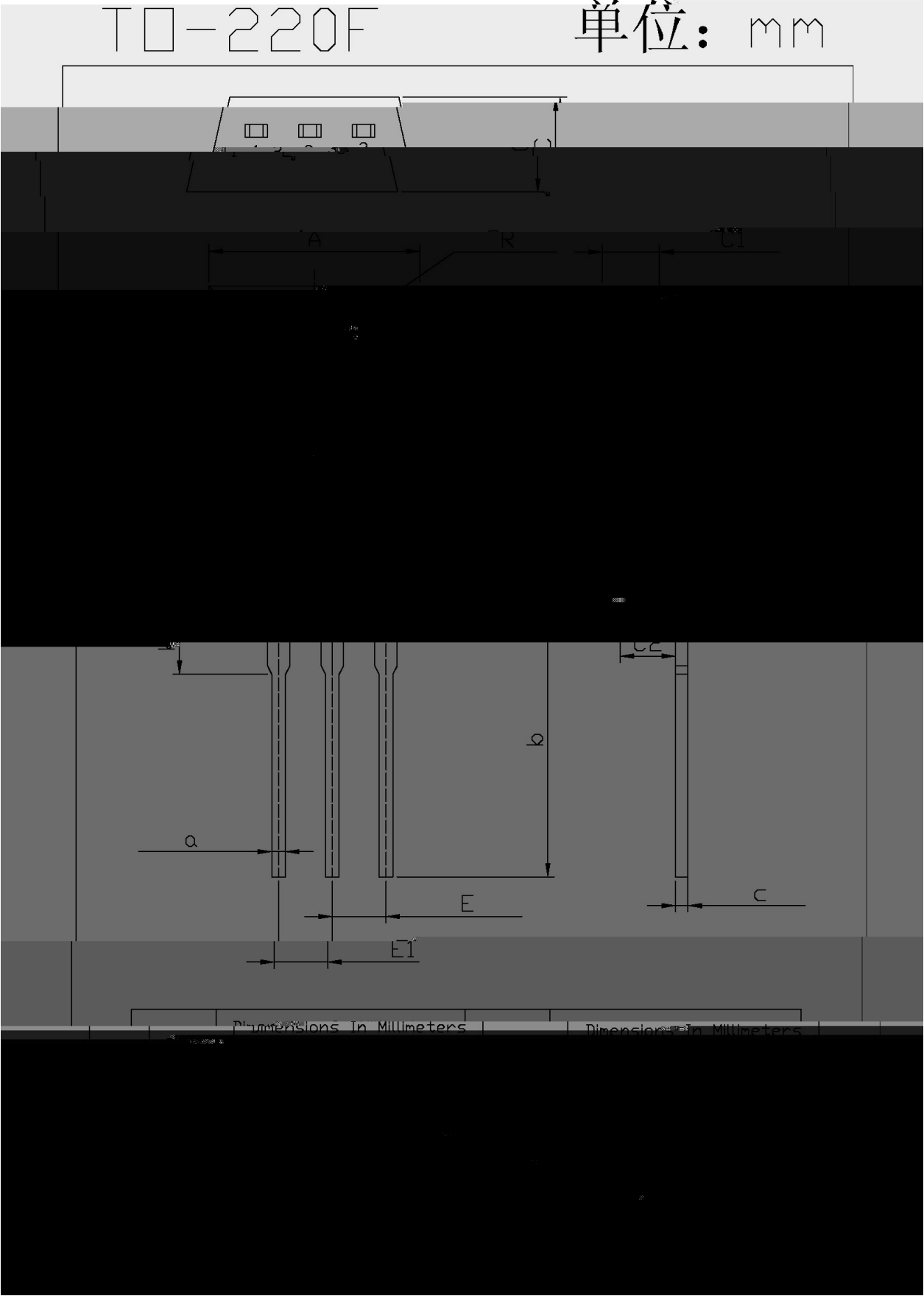
PIN1    Base            PIN 2    Collector            PIN 3    Emitter

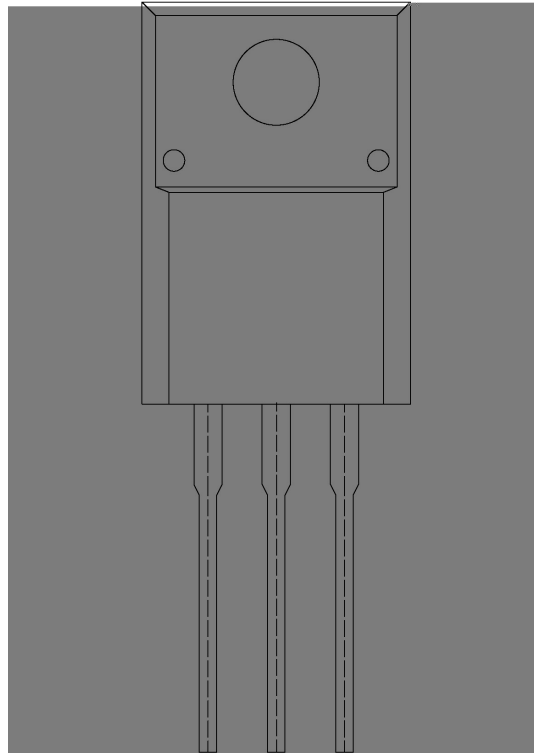
|                                    |       |        |         |
|------------------------------------|-------|--------|---------|
| $h_{FE}$ Classifications<br>Symbol | R     | O      | Y       |
| $h_{FE}$ Range                     | 40~80 | 70~140 | 120~240 |

| Parameter                      | Symbol                 | Rating  | Unit |
|--------------------------------|------------------------|---------|------|
| Collector to Base Voltage      | $V_{CBO}$              | 80      | V    |
| Collector to Emitter Voltage   | $V_{CEO}$              | 80      | V    |
| Emitter to Base Voltage        | $V_{EBO}$              | 5       | V    |
| Collector Current - Continuous | $I_C$                  | 4       | A    |
| Base Current                   | $I_B$                  | 0.4     | A    |
| Collector Power Dissipation    | $P_C(T_C=25^{\circ}C)$ | 25      | W    |
| Junction Temperature           | $T_J$                  | 150     |      |
| Storage Temperature Range      | $T_{stg}$              | -55 150 |      |

| Parameter                               | Symbol        | Test Conditions                 | Min | Typ  | Max | Unit    |
|-----------------------------------------|---------------|---------------------------------|-----|------|-----|---------|
| Collector-Emitter Breakdown Voltage     | $V_{CEO}$     | $I_C=50mA$ $I_B=0$              | 80  |      |     | V       |
| Emitter-Base Breakdown Voltage          | $V_{EBO}$     | $I_C=10mA$ $I_B=0$              | 5   |      |     | V       |
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=80V$ $I_E=0$            |     |      | 30  | $\mu A$ |
| Emitter Cut-Off Current                 | $I_{EBO}$     | $V_{EB}=5.0V$ $I_C=0$           |     |      | 100 | $\mu A$ |
| DC Current Gain                         | $h_{FE(1)}$   | $V_{CE}=5.0V$ $I_C=0.5A$        | 40  |      | 240 |         |
|                                         | $h_{FE(2)}$   | $V_{CE}=5.0V$ $I_C=3.0A$        | 15  | 50   |     |         |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=3.0A$ $I_B=0.3A$           |     | 0.45 | 1.5 | V       |
| Base-Emitter Voltage                    | $V_{BE}$      | $V_{CE}=5.0V$ $I_C=3.0A$        |     | 1.0  | 1.5 | V       |
| Transition Frequency                    | $f_T$         | $I_C=0.5A$ $V_{CE}=5.0V$        |     | 8.0  |     | MHz     |
| Collector output capacitance            | $C_{ob}$      | $V_{CB}=10V$ $f=1.0MHz$ $I_E=0$ |     | 90   |     | pF      |





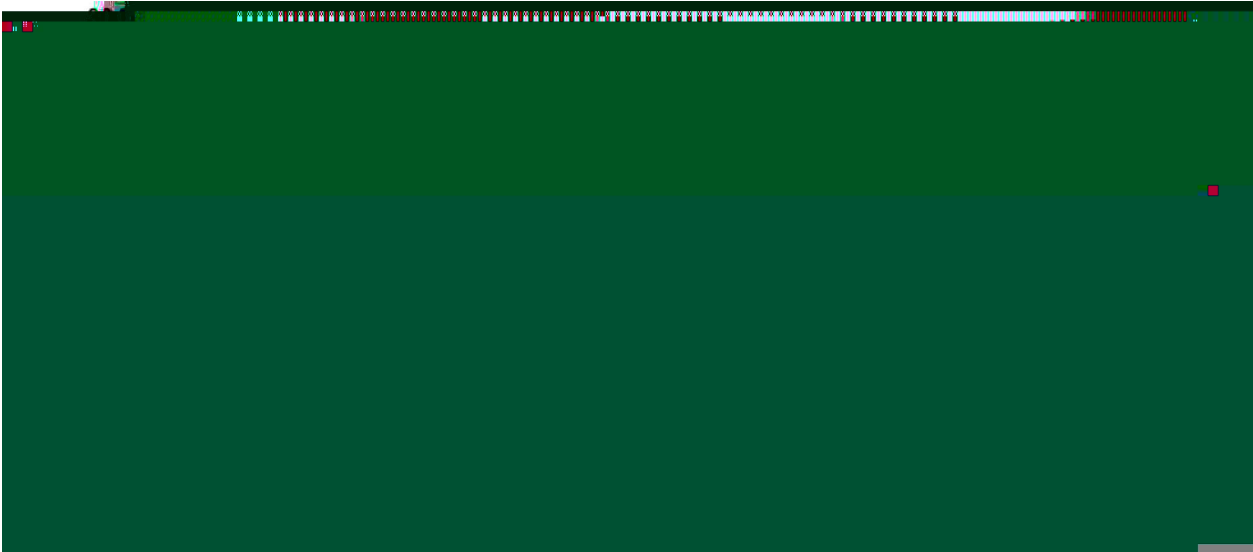


Note:

BR: Company Code.

D2060: Product Type.

R:  $h_{FE}$  Classifications Symbol.



|   |    |     |           |                     |
|---|----|-----|-----------|---------------------|
|   |    |     |           | Note:               |
| 1 | 25 | 150 | 60 90sec; | 1.Preheating:25~150 |