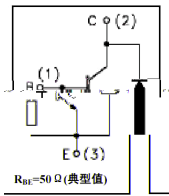


Silicon NPN transistor in a TO-220F Plastic Package.

High breakdown voltage, Low drain current, High switching speed, Low saturation voltage, Excellent current characteristics.

Color TV Horizontal deflection output applications.

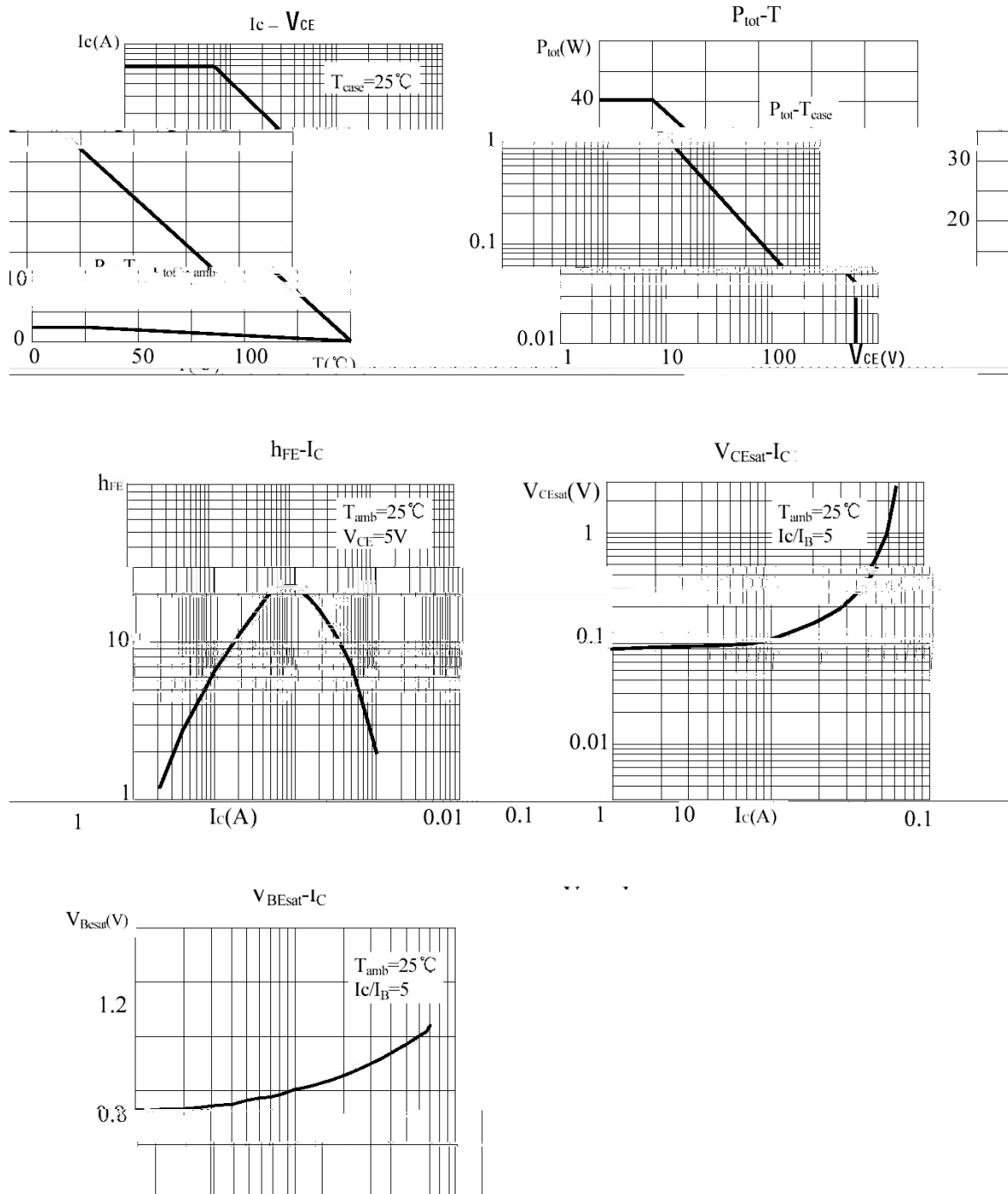


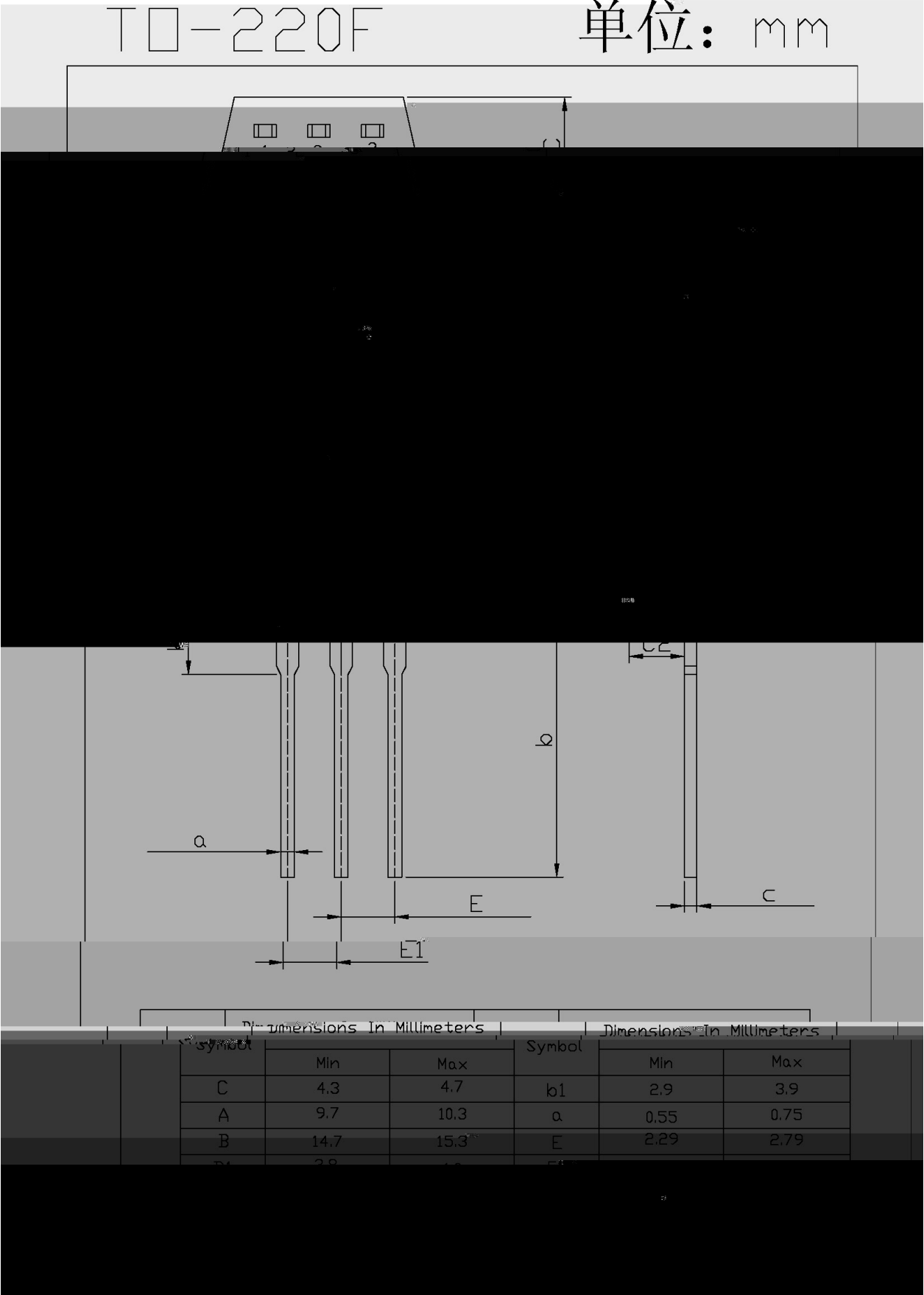
|      |      |       |           |       |         |
|------|------|-------|-----------|-------|---------|
| PIN1 | Base | PIN 2 | Collector | PIN 3 | Emitter |
|------|------|-------|-----------|-------|---------|

See Marking Instructions.

| Parameter                      | Symbol                | Rating  | Unit |
|--------------------------------|-----------------------|---------|------|
| Collector to Base Voltage      | $V_{CBO}$             | 1500    | V    |
| Collector to Emitter Voltage   | $V_{CEO}$             | 800     | V    |
| Emitter to Base Voltage        | $V_{EBO}$             | 5.0     | V    |
| Collector Current - Continuous | $I_C$                 | 6.0     | A    |
| Collector Power Dissipation    | $P_C$                 | 2.0     | W    |
| Collector Power Dissipation    | $P_C(T_c=25^\circ C)$ | 40      | W    |
| Junction Temperature           | $T_J$                 | 150     |      |
| Storage Temperature Range      | $T_{stg}$             | -55 150 |      |

| Parameter                                | Symbol          | Test Conditions                                   | Min | Typ | Max | Unit |
|------------------------------------------|-----------------|---------------------------------------------------|-----|-----|-----|------|
| Collector Cut-Off Current                | $I_{CBO}$       | $V_{CB}=1500V$ $I_E=0$                            |     |     | 1.0 | mA   |
| Emitter Cut-Off Current                  | $I_{EBO}$       | $V_{EB}=5.0V$ $I_C=0$                             | 40  |     | 200 | mA   |
| DC Current Gain*                         | $h_{FE}^*$      | $V_{CE}=5.0V$ $I_C=1.0A$                          | 10  |     | 40  |      |
| Collector to Emitter Saturation Voltage* | $V_{CE(sat)}^*$ | $I_C=4.0A$ $I_B=1.0A$                             |     |     | 5.0 | V    |
| Base to Emitter Saturation Voltage*      | $V_{BE(sat)}^*$ | $I_C=4.0A$ $I_B=1.0A$                             |     |     | 1.5 | V    |
| Fall Time                                | $t_f$           | $V_{CC}=100V$ $I_C=5.0A$<br>$2I_{B1}=I_{B2}=1.0A$ |     |     | 1.0 | s    |
| Transition Frequency                     | $f_T$           | $V_{CE}=10V$ $I_C=0.1A$<br>$f=0.3MHz$             | 2   |     |     | MHz  |





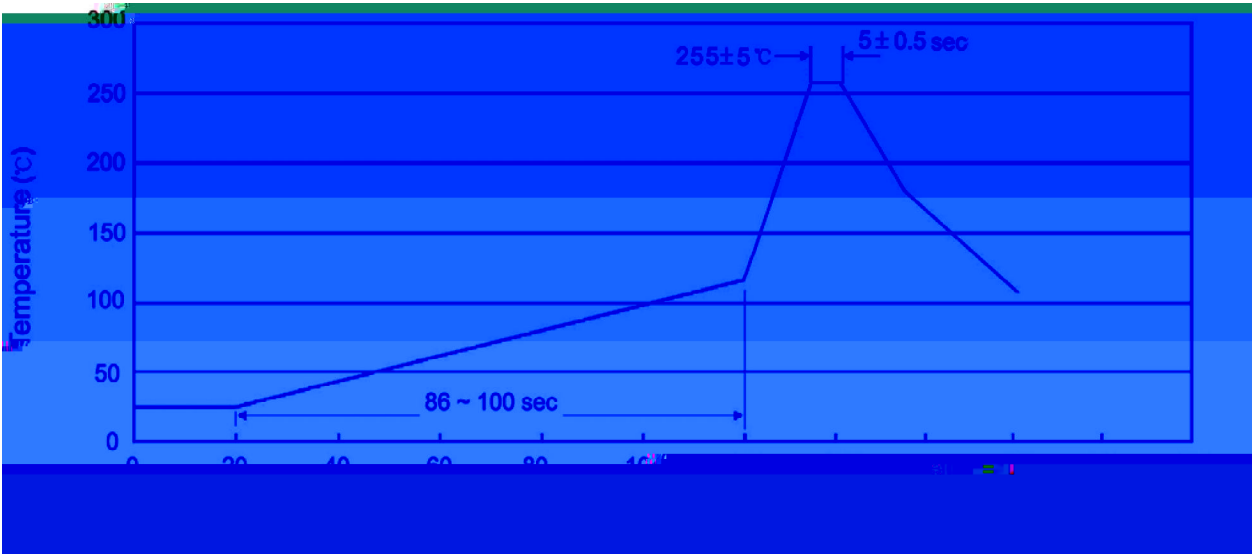


Note:

BR: Company Code.

DD5023: Product Type.

\*\*\*\*: Lot No. Code, code change with Lot No.



Note:

- 1

25 150

60 90sec;
- 2

255 5

5 0.5sec;
- 3

2 10

/sec.
- 1.Preheating:25~150

, Time:60~90sec.
- 2.Peak Temp.:255 5

, Duration:5 0.5sec.
3. Cooling Speed: 2~10

/sec.

270 5

10 1 sec.

Temp.:270±5

Time:10±1 sec

| Package Type<br>封装形式 | Units 包装数量       |                       |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Bag<br>只/袋 | Bags/Inner Box<br>袋/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Bag 袋                                   | Inner Box 盒 | Outer Box 箱 |
| TO-220/F             | 200              | 10                    | 2,000                  | 5                            | 10,000                 | 135×190                                 | 237×172×102 | 560×245×195 |

/ TUBE

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Tube<br>只/套管 | Tubes/Inner Box<br>套管/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Tube 套管                                 | Inner Box 盒 | Outer Box 箱 |
| TO-220/F             | 50                 | 20                      | 1,000                  | 5                            | 5,000                  | 532×31.4×5.5                            | 555×164×50  | 575×290×180 |