

## / Descriptions

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

## / Features

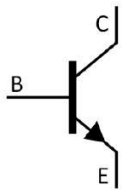
, 2SA940

Wide Safe Operating Area, complementary to 2SA940.

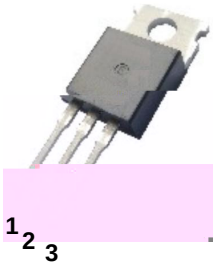
## / Applications

Power amplifier applications, vertical output applications.

### / Equivalent Circuit



## / Pinning



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

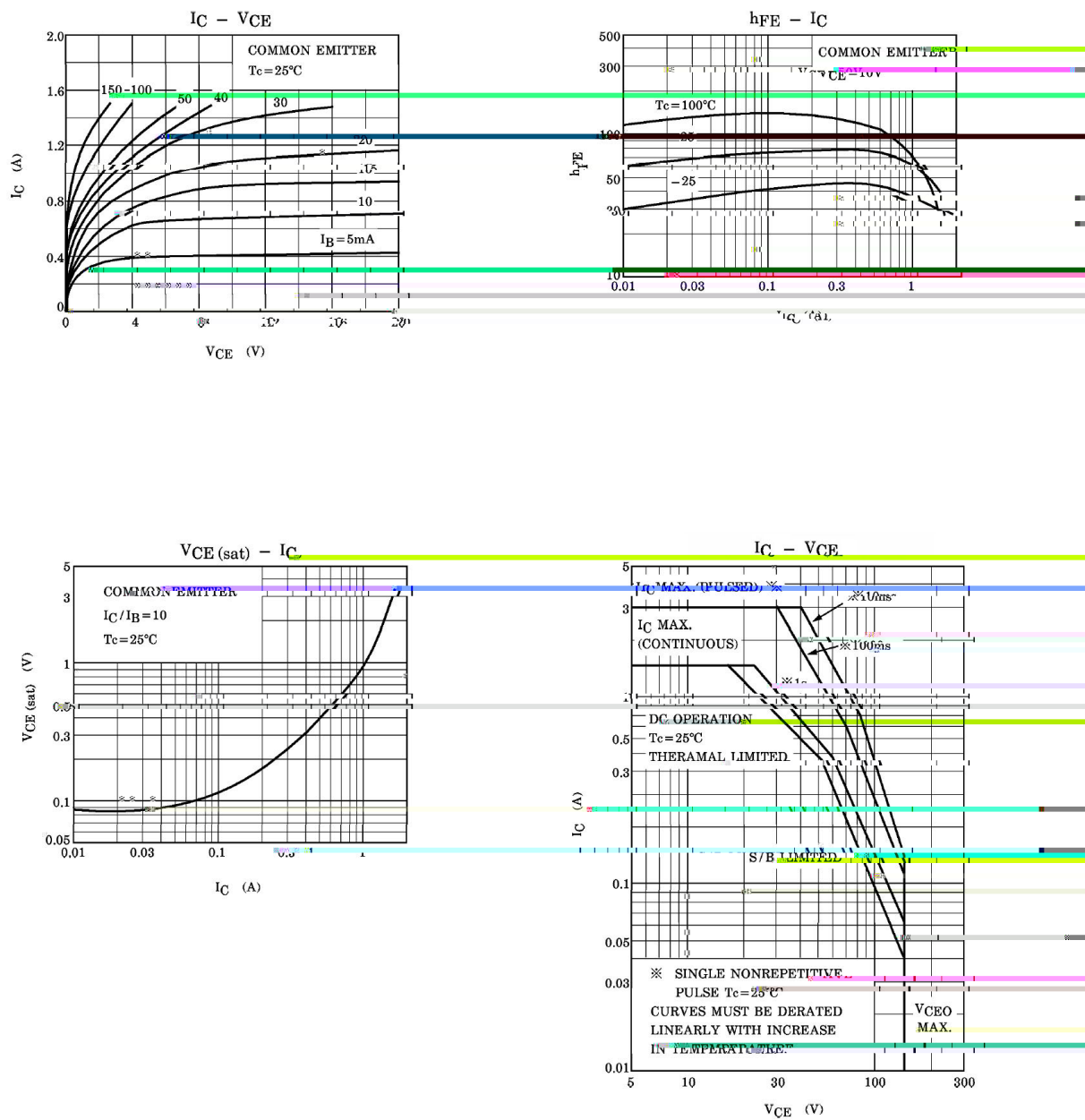
## / $h_{FE}$ Classifications & Marking

See Marking Instructions.

| Parameter                      | Symbol                | Rating  | Unit |
|--------------------------------|-----------------------|---------|------|
| Collector to Base Voltage      | $V_{CBO}$             | 150     | V    |
| Collector to Emitter Voltage   | $V_{CEO}$             | 150     | V    |
| Emitter to Base Voltage        | $V_{EBO}$             | 5.0     | V    |
| Collector Current - Continuous | $I_C$                 | 1.5     | A    |
| Base Current - Continuous      | $I_B$                 | 0.5     | A    |
| Collector Power Dissipation    | $P_C$                 | 2.0     | W    |
|                                | $P_C(T_c=25^\circ C)$ | 25      | W    |
| Junction Temperature           | $T_j$                 | 150     |      |
| Storage Temperature Range      | $T_{stg}$             | -55 150 |      |

| Parameter                               | Symbol        | Test Conditions          | Min | Typ | Max | Unit    |
|-----------------------------------------|---------------|--------------------------|-----|-----|-----|---------|
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=120V$ $I_E=0$    |     |     | 10  | $\mu A$ |
| Emitter Cut-Off Current                 | $I_{EBO}$     | $V_{EB}=5.0V$ $I_C=0$    |     |     | 10  | $\mu A$ |
| DC Current Gain                         | $h_{FE}$      | $V_{CE}=10V$ $I_C=500mA$ | 40  | 75  | 140 |         |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=500mA$ $I_B$        |     |     |     |         |

/ Electrical Characteristic Curve



## / Package Dimensions

