

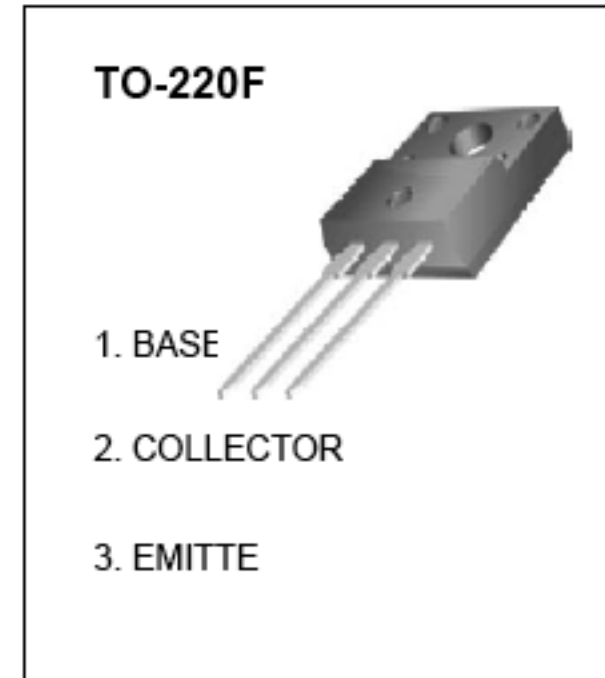


## TO-220F Plastic-Encapsulate Transistors

### 3DA4793 TRANSISTOR (NPN)

#### FEATURES

- High Transition Frequency :  $f_T=100\text{MHz}(\text{Typ})$
- Complementary to 3CA1837
- Collector Power Dissipation  
 $P_{CM} : 2\text{W} (T_{amb}=25^\circ\text{C})$   
 $20\text{ W} (T_{case}=25^\circ\text{C})$



#### MAXIMUM RATINGS\* $T_A=25^\circ\text{C}$ unless otherwise noted

| Symbol    | Parameter                     | Value   | Units            |
|-----------|-------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage        | 230     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage     | 230     | V                |
| $V_{EBO}$ | Emitter-Base Voltage          | 5       | V                |
| $I_C$     | Collector Current -Continuous | 1000    | mA               |
| $I_B$     | Base Current                  | 100     | mA               |
| $T_J$     | Junction Junction             | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Junction              | -55-150 | $^\circ\text{C}$ |

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

#### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^\circ\text{C}$ unless otherwise specified)

| Parameter                            | Symbol        | Test conditions                       | MIN | TYP | MAX | UNIT          |
|--------------------------------------|---------------|---------------------------------------|-----|-----|-----|---------------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=0.1\text{mA}, I_E=0$             | 230 |     |     | V             |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=1\text{mA}, I_B=0$               | 230 |     |     | V             |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=100\mu\text{A}, I_C=0$           | 5   |     |     | V             |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=230\text{V}, I_E=0$           |     |     | 10  | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=5\text{V}, I_C=0$             |     |     | 10  | $\mu\text{A}$ |
| DC current gain                      | $h_{FE}$      | $V_{CE}=5\text{V}, I_C=100\text{mA}$  | 100 |     | 320 |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=500\text{mA}, I_B=50\text{mA}$   |     |     | 1.5 | V             |
| Transition frequency                 | $f_T$         | $V_{CE}=10\text{V}, I_C=100\text{mA}$ | 30  |     |     | MHz           |

