



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

## TO-220F Plastic-Encapsulate Transistors

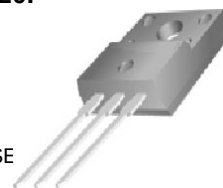
**3DA4793** TRANSISTOR (NPN)

### FEATURES

- High Transition Frequency :  $f_T=100\text{MHz(Typ)}$
- Complementary to 3CA1837
- Collector Power Dissipation

$P_{CM} : 2\text{W (Tamb=25}^\circ\text{C)}$   
 $20\text{ W (Tcase=25}^\circ\text{C)}$

TO-220F



1. BASE
2. COLLECTOR
3. EMITTE

### 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           |

# Typical Characteristics

3DA4793

