

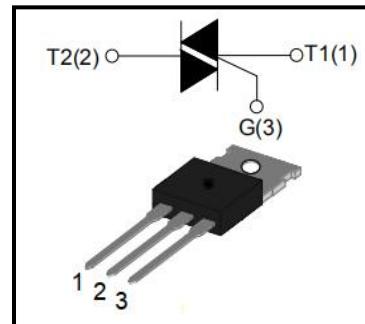
P/N: YZPST-TYN616

● Package

TO-220C

● Main Feature (T<sub>j</sub>=25°C)

| Symbol                              | Value   | Unit |
|-------------------------------------|---------|------|
| I <sub>T</sub> (RMS)                | 16      | A    |
| V <sub>DRM</sub> / V <sub>RRM</sub> | 600     | V    |
| I <sub>GT</sub>                     | 2 to 15 | mA   |



TO-220C

● Absolute ratings (Limiting Values)

| Symbol               | Parameter  | Value     | Unit             |
|----------------------|--|-----------|------------------|
| I <sub>T</sub> (RMS) | RMS on-state current (180° conduction angle)         | 16        | A                |
| I <sub>T(AV)</sub>   | AV on-state current (180° conduction angle)          | 10        | A                |
| I <sub>TSM</sub>     | Non repetitive surge peak on-state Current (tp=10ms) | 160       | A                |
| I <sup>2</sup> t     | (tp=10ms)  | 100       | A <sup>2</sup> S |
| I <sub>GM</sub>      | Peak gate current(tp=20us)                           | 4         | A                |
| P <sub>GM</sub>      | Peak gate power                                      | 5         | W                |
| P <sub>G(AV)</sub>   | Average gate power                                   | 1         | W                |
| T <sub>stg</sub>     | Storage temperature                                  | -40--+150 |                  |
| T <sub>j</sub>       | Operating junction temperature                       | -40--+125 | °C               |

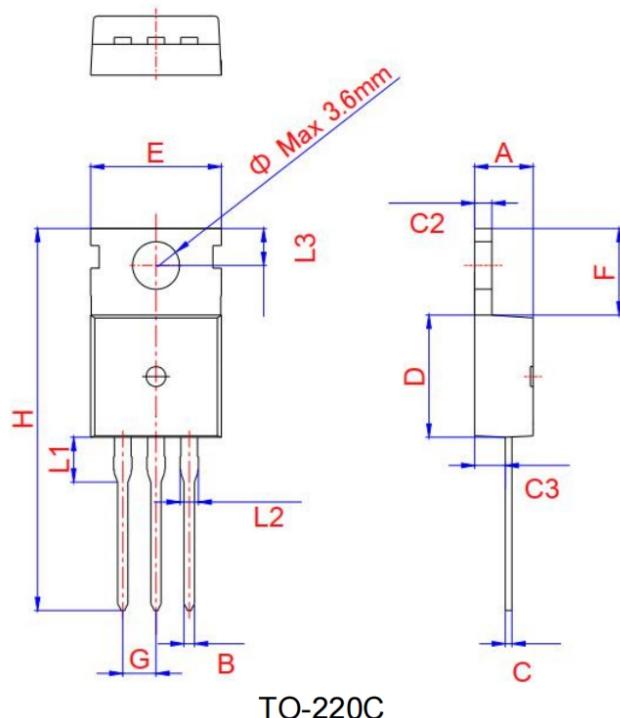
● Thermal Resistances

| Symbol                | Parameter           | Value | Unit |
|-----------------------|---------------------|-------|------|
| R <sub>th</sub> (j-c) | Junction to case    | 1.1   | K/W  |
| R <sub>th</sub> (j-a) | Junction to ambient | 55    | K/W  |

●Electrical characteristics ( $T_j=25^\circ\text{C}$  unless otherwise stated)

| Symbol    | Test Conditions   | Value                   |       |       | Unit             |    |
|-----------|---|-------------------------|-------|-------|------------------|----|
|           |   | Min                     | Type  | Max   |                  |    |
| $I_{GT}$  | $V_D=6\text{V}, R_L=100\ \Omega$                              | 2                       | 5     | 15    | mA               |    |
| $V_{GT}$  | $V_D=12\text{V}, R_L=100\ \Omega$                             | -----                   | 0.7   | 0.8   | V                |    |
| $V_{GD}$  | $V_D=V_{DRM}, R_L=3.3\text{K}\ \Omega, T_j=110^\circ\text{C}$ | 0.2                     | ----- | ----- | V                |    |
| $I_H$     | $I_T=100\text{mA}$ Gate Open                                  | -----                   | 30    | 40    | mA               |    |
| $dV/dt$   | $V_D=67\%V_{DRM}$ , GateOpen, $T_j=125^\circ\text{C}$         | 400                     | ----- | ----- | v/ $\mu\text{s}$ |    |
| $V_{TM}$  | $I_T=24\text{A}, t_p=380\ \mu\text{s}$                        | -----                   | ----- | 1.7   | V                |    |
| $I_{DRM}$ | $V_D=V_{DRM}$   | $T_j=25^\circ\text{C}$  | ----- | ----- | 10               | uA |
| $I_{RRM}$ | $V_R=V_{RRM}$   | $T_j=125^\circ\text{C}$ | ----- | ----- | 1                | mA |

●Measure of package



| Ref.   | Dimensions  |      |      |        |       |       |
|--------|-------------|------|------|--------|-------|-------|
|        | Millimeters |      |      | Inches |       |       |
|        | Min.        | Typ. | Max. | Min.   | Typ.  | Max.  |
| A      | 4.3         |      |      | 0.169  |       | 0.177 |
| B      | 0.7         |      |      | 0.028  |       | 0.035 |
| C      | 0.45        |      |      | 0.018  |       | 0.024 |
| C2     | 1.23        | 1.30 | 1.32 | 0.048  | 0.051 | 0.052 |
| C3     | 2.2         |      |      | 0.087  |       | 0.102 |
| D      | 8.9         |      |      | 0.35   |       | 0.39  |
| E      | 9.9         | 10.1 | 10.3 | 0.39   | 0.398 | 0.406 |
| F      | 6.3         |      |      | 0.248  |       | 0.272 |
| G      |             | 2.54 |      |        | 0.1   |       |
| H      | 28          |      |      | 1.102  |       | 1.173 |
| L1     |             | 3.39 |      |        | 0.133 |       |
| L2     | 1.14        |      |      | 0.045  |       | 0.067 |
| L3     | 2.65        |      |      | 0.104  |       | 0.116 |
| $\Phi$ |             | 3.6  |      |        | 0.142 |       |