

/ Descriptions

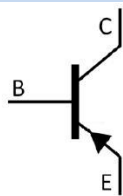
TO-220                  PNP

/ Features

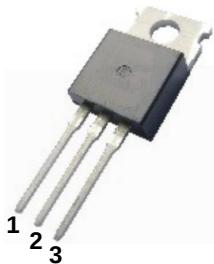
KSD288

/ Applications

/ Equivalent Circuit



/ Pinning



/  $h_{FE}$  Classifications & Marking

|  |   |   |   |
|--|---|---|---|
|  |   |   |   |
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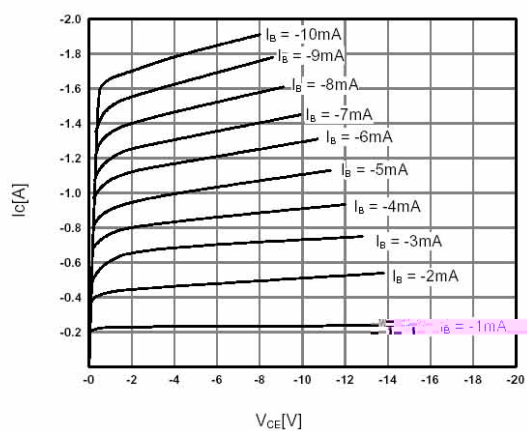
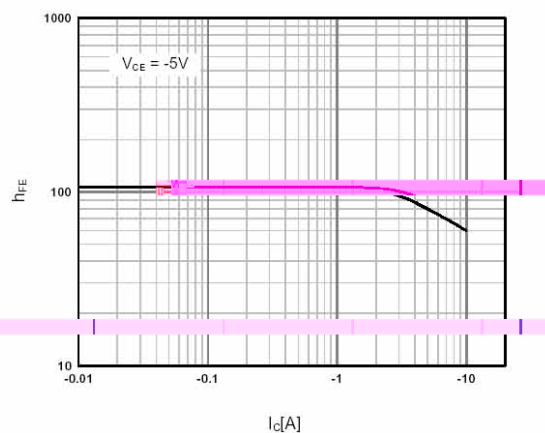
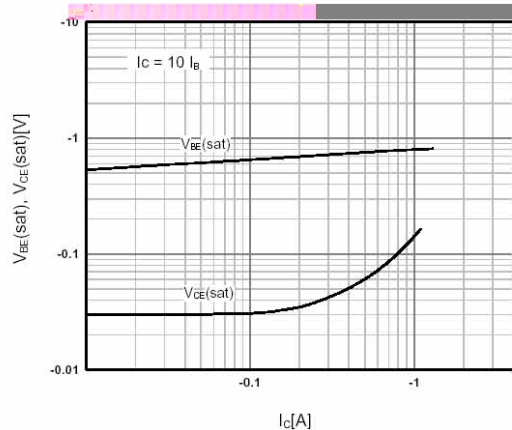
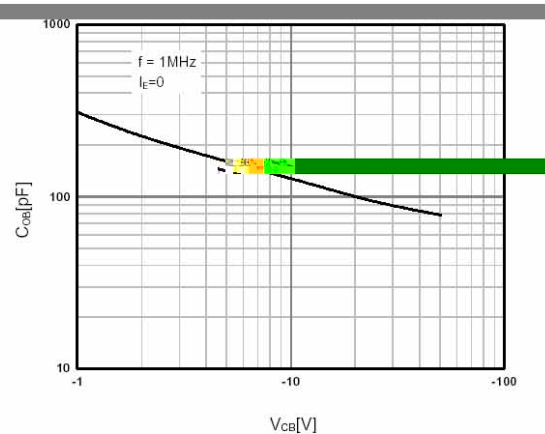
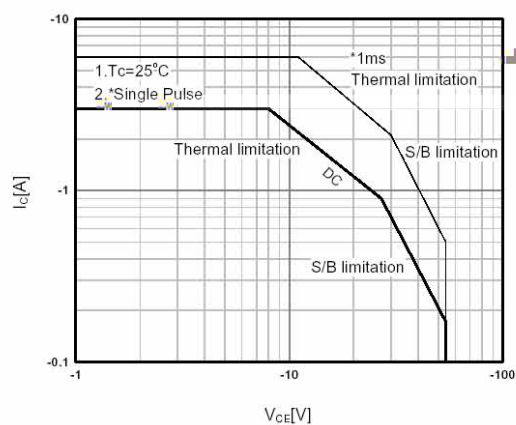
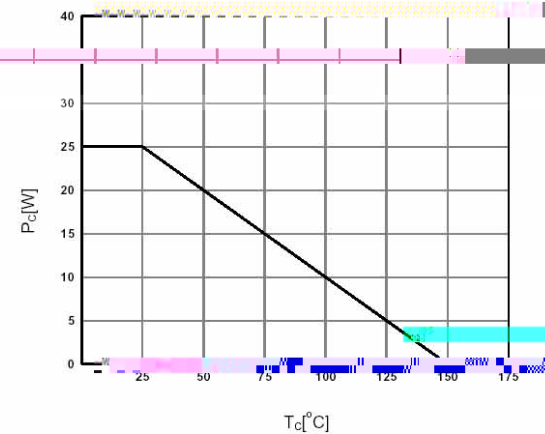
/ Absolute Maximum Ratings(Ta=25 )

|  |   |   |  |
|--|---|---|--|
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/ Electrical Characteristics(Ta=25 )

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|--|--|---|--|--|--|---|
|  |  |   |  |  |  |   |
|  |  | μ |  |  |  |   |
|  |  |   |  |  |  |   |
|  |  | μ |  |  |  |   |
|  |  |   |  |  |  | μ |
|  |  |   |  |  |  | μ |
|  |  |   |  |  |  |   |
|  |  |   |  |  |  |   |

## / Electrical Characteristic Curve

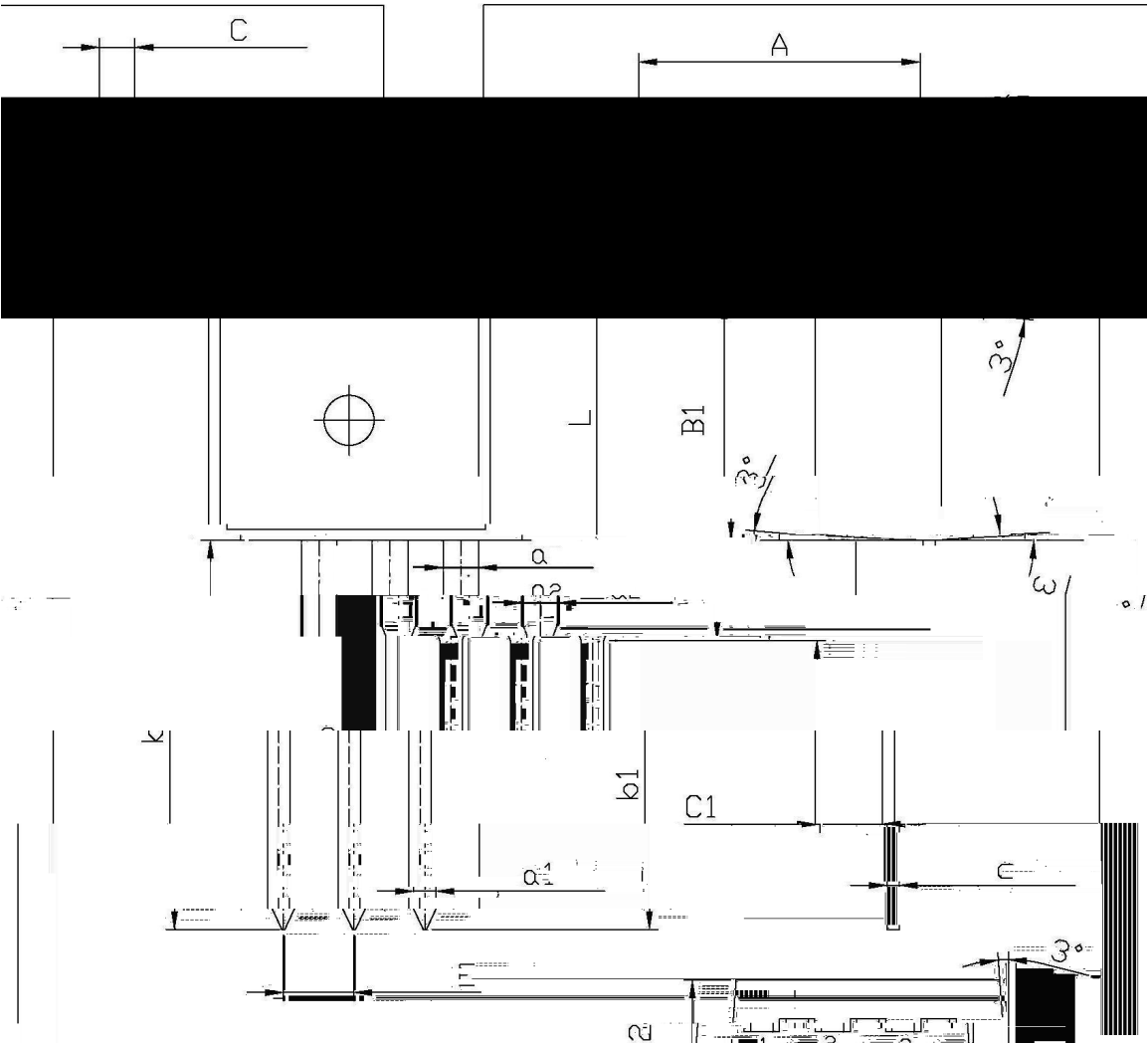
 $I_C - V_{CE}$  $h_{FE} - I_C$  $V_{BE}(sat), V_{CE}(sat) - I_C$  $C_{ob} - V_{CB}$  $I_C - V_{CE}$  $P_c - T_c$ 

/ Package Dimensions

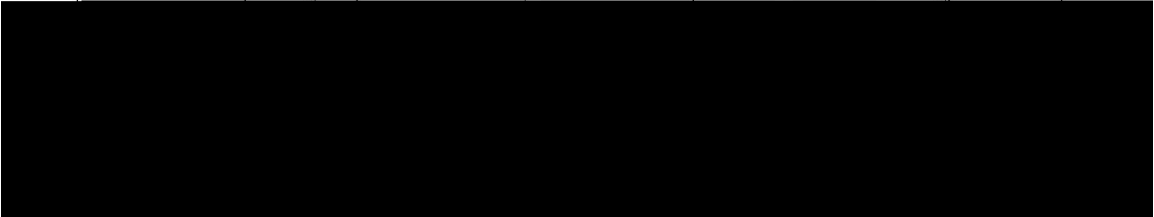
单位: mm

TPL-2220

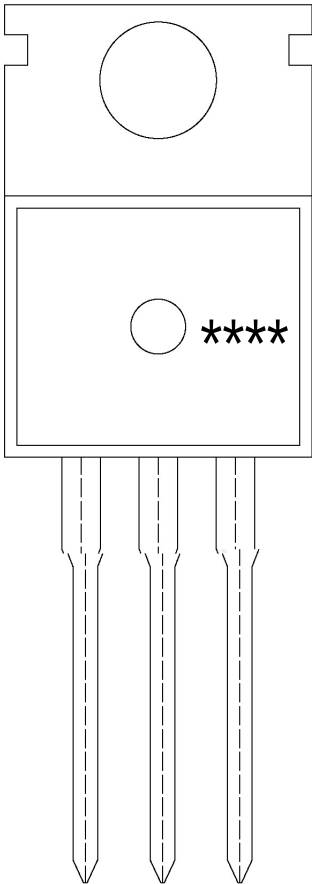
E



| Symbol | Dimensions in Millimeters |      | Symbol | Dimensions in Millimeters |      |      |
|--------|---------------------------|------|--------|---------------------------|------|------|
|        | Min                       | Max  |        | Min                       | Max  |      |
|        | 7.7                       | 9.8  | 10.2   | 1.2                       | 1.4  |      |
|        | R <sub>x</sub>            | 3.56 | 3.54   | B                         | 6.3  | 6.7  |
| B      | 9.0                       | 9.4  |        |                           | 15.7 | 16.1 |
|        | 10.0                      | 10.2 |        |                           | 10.0 | 10.2 |



/ Marking Instructions



BR

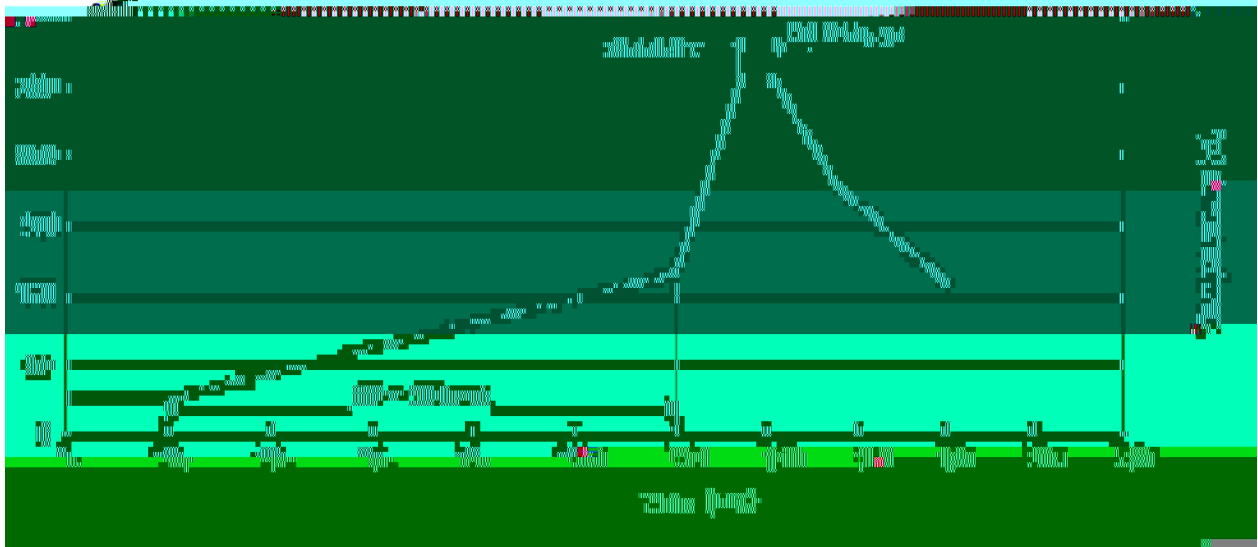
A614

Y:

\*\*\*\*

$h_{FE}$

( ) / Temperature Profile for Dip Soldering(Pb-Free)

 $\pm$  $\pm$  $\pm$  $\pm$ 

### / Resistance to Soldering Heat Test Conditions

 $\pm$  $\pm$ 

## / Packaging SPEC.

|          | Units/Bag<br>/ | Bags/Inner Box<br>/ | Units/Inner Box<br>/ | Inner Boxes/Outer Box<br>/ | Units/Outer Box<br>/ | Bag     | Inner Box   | Outer Box   |
|----------|----------------|---------------------|----------------------|----------------------------|----------------------|---------|-------------|-------------|
| TO-220/F | 200            | 10                  | 2,000                | 5                          | 10,000               | 135×190 | 237×172×102 | 560×245×195 |

|          | Units/Tube<br>/ | Tubes/Inner Box<br>/ | Units/Inner Box<br>/ | Inner Boxes/Outer Box<br>/ | Units/Outer Box<br>/ | Tube         | Inner Box  | Outer Box   |
|----------|-----------------|----------------------|----------------------|----------------------------|----------------------|--------------|------------|-------------|
| TO-220/F | 50              | 20                   | 1,000                | 5                          | 5,000                | 532×31.4×5.5 | 555×164×50 | 575×290×180 |

## / Notices