# Silicon NPN Power Transistors 2SD905



## DESCRIPTION

·With TO-3 package

·High voltage ,high speed

## APPLICATIONS

·For high voltage power switching TV horizontal deflection output applications

**PINNING(see Fig.2)**

| PIN | DESCRIPTION |
|---|---|
| 1 | Base |
| 2 | Emitter |
| 3 | Collector |


**Fig.1 simplified outline (TO-3) and symbol**

**Absolute maximum ratings(Ta=□)**

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|---|---|---|---|---|
| $V_{CBO}$ | Collector-base voltage | Open emitter | 1400 | V |
| $V_{CEO}$ | Collector-emitter voltage | Open base | 650 | V |
| $V_{EBO}$ | Emitter-base voltage | Open collector | 5 | V |
| $I_C$ | Collector current | | 8 | A |
| $I_{CM}$ | Collector current-peak | | 10 | A |
| $P_C$ | Collector power dissipation | $T_C$=25□ | 50 | W |
| $T_j$ | Junction temperature | | 150 | □ |
| $T_{stg}$ | Storage temperature | | -45~150 | □ |

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## CHARACTERISTICS

**Tj=25□ unless otherwise specified**



| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage | $I_C$=10mA ;$R_{BE}$=∞ | 650 | | | V |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage | $I_E$=10mA ; $I_C$=0 | 5 | | | V |
| $V_{CEsat}$ | Collector-emitter saturation voltage | $I_C$=8A;$I_B$=1.5A | | | 10 | V |
| $V_{BEsat}$ | Base-emitter saturation voltage | $I_C$=8A;$I_B$=1.5A | | | 1.5 | V |
| $I_{CES}$ | Collector cut-off current | $V_{CE}$=1400V ; $R_{BE}$=0 | | | 0.5 | mA |
| $I_{EBO}$ | Emitter cut-off current | $V_{EB}$=5V; $I_C$=0 | | | 0.5 | mA |
| $h_{FE}$ | DC current gain | $I_C$=1A ; $V_{CE}$=5V | 8 | | 36 | |
| $t_f$ | Fall time | $I_C$=6.8A; $I_{B1}$=1.1A;$L_B$=0 | | | 1.0 | μs |

**PACKAGE OUTLINE**



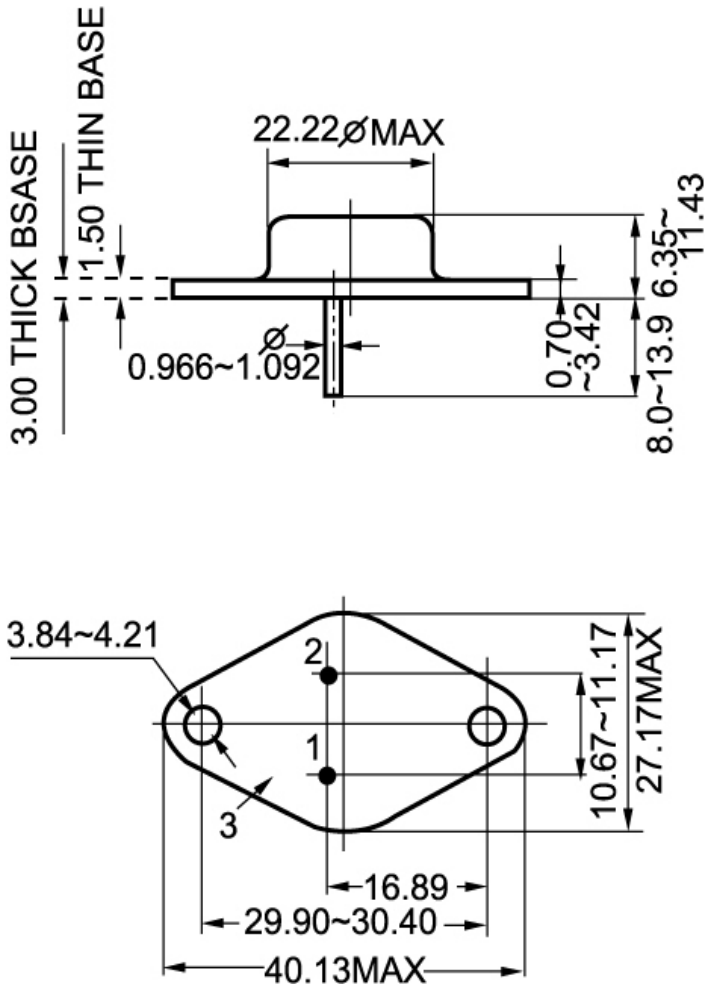


**Fig.2 outline dimensions (unindicated tolerance:±0.1mm)**