

Silicon NPN Power Transistors

2SD5072

DESCRIPTION

- With TO-3PML package
- High speed
- High breakdown voltage
- Built-in damper diode

APPLICATIONS

- Color TV horizontal output application

PINNING

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

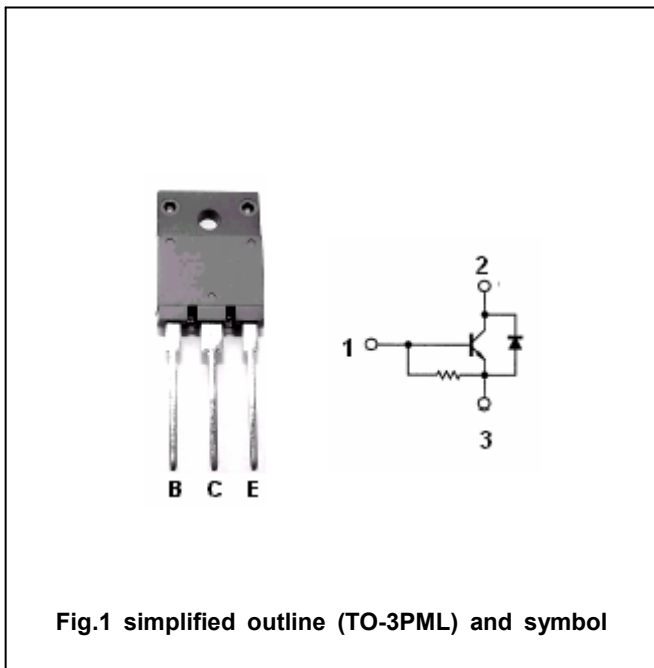


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings(Ta=25°C)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V _{CBO} | Collector-base voltage | Open emitter | 1500 | V |
| V _{CEO} | Collector-emitter voltage | Open base | 800 | V |
| V _{EBO} | Emitter-base voltage | Open collector | 6 | V |
| I _C | Collector current | | 5 | A |
| I _{CM} | Collector current-peak | | 16 | A |
| P _C | Collector power dissipation | T _C =25°C | 60 | W |
| T _j | Junction temperature | | 150 | °C |
| T _{stg} | Storage temperature | | -50~150 | °C |

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|--------------------|--------------------------------------|---|-----|------|-----|------|
| V _{CEsat} | Collector-emitter saturation voltage | I _C =4 A; I _B =0.8A | | | 5.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =4 A; I _B =0.8A | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =800V; I _E =0 | | | 10 | μA |
| I _{EBO} | Emitter cut-off current | V _{EB} =4V; I _C =0 | 40 | | 200 | mA |
| h _{FE} | DC current gain | I _C =1A ; V _{CE} =5V | 8 | | | |
| f _T | Transition frequency | I _C =1A ; V _{CE} =10V | | 3 | | MHz |
| V _F | Diode forward voltage | I _F =5A | | | 2.0 | V |
| t _f | Fall time | I _C =4A; R _L =50Ω; V _{CC} =200V I _{B1} =0.8A; I _{B2} =-1.6A | | | 0.4 | μs |

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PACKAGE OUTLINE

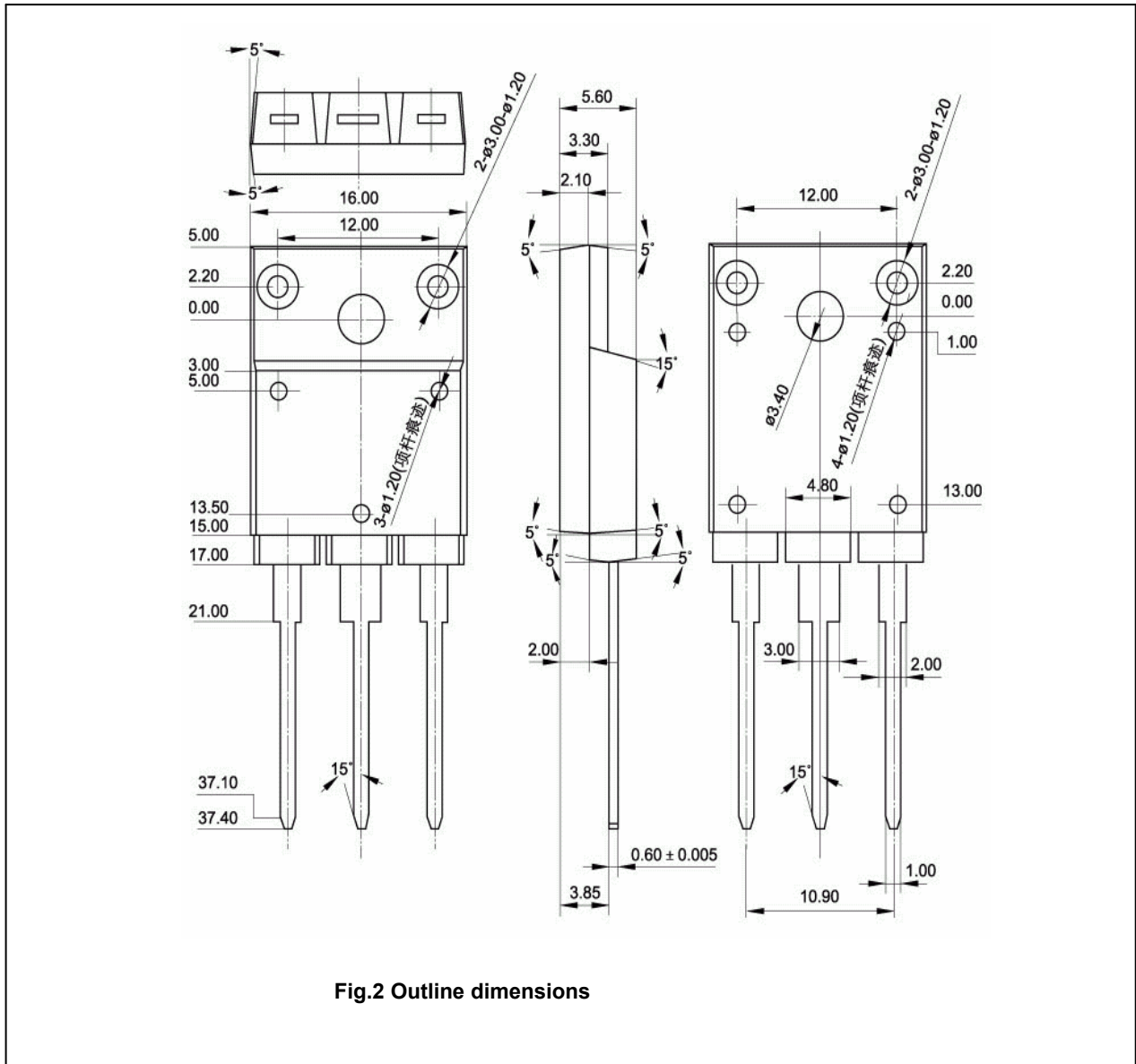


Fig.2 Outline dimensions