

XP6501

Silicon NPN epitaxial planer transistor

For general amplification

■ Features

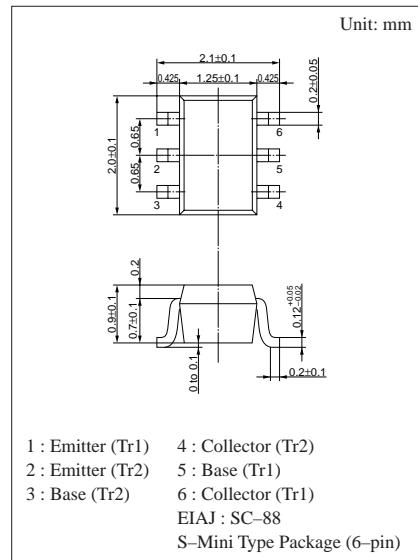
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

■ Basic Part Number of Element

- 2SD601A × 2 elements

■ Absolute Maximum Ratings (Ta=25°C)

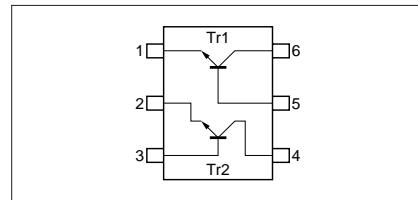
| | Parameter | Symbol | Ratings | Unit |
|-------------------|------------------------------|------------------|-------------|------|
| Rating of element | Collector to base voltage | V _{CBO} | 60 | V |
| | Collector to emitter voltage | V _{CEO} | 50 | V |
| | Emitter to base voltage | V _{EBO} | 7 | V |
| | Collector current | I _C | 100 | mA |
| | Peak collector current | I _{CP} | 200 | mA |
| Overall | Total power dissipation | P _T | 150 | mW |
| | Junction temperature | T _j | 150 | °C |
| | Storage temperature | T _{stg} | -55 to +150 | °C |



1 : Emitter (Tr1) 4 : Collector (Tr2)
 2 : Emitter (Tr2) 5 : Base (Tr1)
 3 : Base (Tr2) 6 : Collector (Tr1)
 EIAJ : SC-88
 S-Mini Type Package (6-pin)

Marking Symbol: 5N

Internal Connection



■ Electrical Characteristics (Ta=25°C)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|--|---|--|-----|------|-----|------|
| Collector to base voltage | V _{CBO} | I _C = 10µA, I _E = 0 | 60 | | | V |
| Collector to emitter voltage | V _{CEO} | I _C = 2mA, I _B = 0 | 50 | | | V |
| Emitter to base voltage | V _{EBO} | I _E = 10µA, I _C = 0 | 7 | | | V |
| Collector cutoff current | I _{CBO} | V _{CB} = 20V, I _E = 0 | | | 0.1 | µA |
| | I _{CEO} | V _{CE} = 10V, I _B = 0 | | | 100 | µA |
| Forward current transfer ratio | h _{FE} | V _{CE} = 10V, I _C = 2mA | 160 | | 460 | |
| Forward current transfer h _{FE} ratio | h _{FE} (small/large) ^{*1} | V _{CE} = 10V, I _C = 2mA | 0.5 | 0.99 | | |
| Collector to emitter saturation voltage | V _{CE(sat)} | I _C = 100mA, I _B = 10mA | | 0.1 | 0.3 | V |
| Transition frequency | f _T | V _{CB} = 10V, I _E = -2mA, f = 200MHz | | 150 | | MHz |
| Collector output capacitance | C _{ob} | V _{CB} = 10V, I _E = 0, f = 1MHz | | 3.5 | | pF |

*1 Ratio between 2 elements

