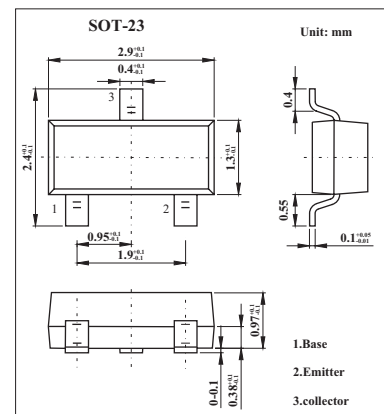


NPN General Purpose Transistor

2PD601A

■ Features

- Low current (max. 100 mA)
- Low voltage (max. 50 V).

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|---|---------------|-------------|------------------|
| Collector-base voltage | V_{CBO} | 60 | V |
| Collector-emitter voltage | V_{CEO} | 50 | V |
| Emitter-base voltage | V_{EBO} | 6 | V |
| Collector current (DC) | I_C | 100 | mA |
| Peak collector current | I_{CM} | 200 | mA |
| Peak base current | I_{BM} | 100 | mA |
| Total power dissipation $T_{amb} \leq 25^\circ\text{C}$; * | P_{tot} | 250 | mW |
| Storage temperature | T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Operating ambient temperature | T_{amb} | -65 to +150 | $^\circ\text{C}$ |
| Thermal resistance from junction to ambient * | $R_{th\ j-a}$ | 500 | K/W |

* Transistor mounted on an FR4 printed-circuit board.

2PD601A

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit | |
|--------------------------------------|--------------------|--|----------|-----|-----|------|-----|
| Collector cut-off current | I _{CBO} | I _E = 0; V _{CB} = 60 V | | | 10 | nA | |
| | | I _E = 0; V _{CB} = 60 V; T _j = 150°C | | | 5 | μA | |
| Emitter cut-off current | I _{EBO} | I _C = 0; V _{EB} = 5 V | | | 10 | nA | |
| DC current gain | h _{FE} | I _C = 2 mA; V _{CE} = 10 V; * | 2PD601AQ | 160 | | 260 | |
| | | | 2PD601AR | 210 | | 340 | |
| | | | 2PD601AS | 290 | | 460 | |
| DC current gain | h _{FE} | I _C = 100 mA; V _{CE} = 2 V; | 90 | | | | |
| Collector-emitter saturation voltage | V _{CEsat} | I _C = 100 mA; I _B = 10 mA; * | | | 500 | mV | |
| Collector capacitance | C _c | I _E = i _e = 0; V _{CB} = 10 V; f = 1 MHz | | | 3.5 | pF | |
| Transition frequency | f _T | I _C = 2 mA; V _{CE} = 10 V; f = 100 MHz * | 2PD601AQ | 100 | | | MHz |
| | | | 2PD601AR | 120 | | | |
| | | | 2PD601AS | 140 | | | |

* Pulse test: t_p ≤ 300 μs; δ ≤ 0.02.

■ Marking

| Type Number | 2PD601AQ | 2PD601AR | 2PD601AS |
|-------------|----------|----------|----------|
| Marking | ZQ | ZR | ZS |