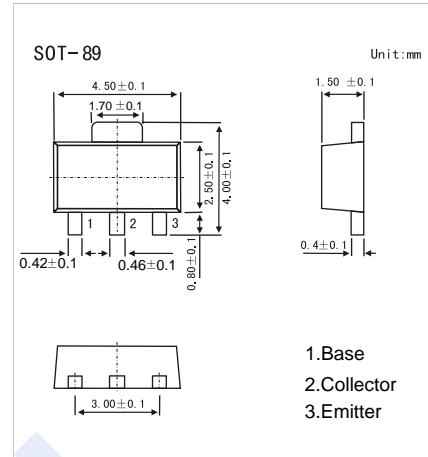


NPN Transistors

KTC4375

■ Features

- Low voltage
- Complementary to KTA1663

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

| Parameter | Symbol | Rating | Unit |
|--------------------------------|-----------|------------|------------------|
| Collector - Base Voltage | V_{CB0} | 30 | V |
| Collector - Emitter Voltage | V_{CE0} | 30 | |
| Emitter - Base Voltage | V_{EB0} | 5 | |
| Collector Current - Continuous | I_c | 1.5 | A |
| Collector Power Dissipation | P_c | 500 | mW |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 to 150 | |

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---|-----|-----|-----|------|
| Collector- base breakdown voltage | V_{CB0} | $I_c = 1\text{ mA}, I_E = 0$ | 30 | | | V |
| Collector- emitter breakdown voltage | V_{CE0} | $I_c = 10\text{ mA}, I_B = 0$ | 30 | | | |
| Emitter - base breakdown voltage | V_{EB0} | $I_E = 1\text{ mA}, I_c = 0$ | 5 | | | |
| Collector-base cut-off current | I_{CB0} | $V_{CB} = 30\text{ V}, I_E = 0$ | | | 100 | nA |
| Emitter cut-off current | I_{EB0} | $V_{EB} = 5\text{ V}, I_c = 0$ | | | 100 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_c = 1.5\text{ A}, I_B = 30\text{ mA}$ | | | 2 | V |
| Base - emitter saturation voltage | $V_{BE(sat)}$ | $I_c = 1.5\text{ A}, I_B = 30\text{ mA}$ | | | 1.2 | |
| Base - emitter voltage | V_{BE} | $V_{CE} = 2\text{ V}, I_c = 500\text{ mA}$ | | | 1 | |
| DC current gain | h_{FE} | $V_{CE} = 2\text{ V}, I_c = 500\text{ mA}$ | 100 | | 320 | |
| Collector output capacitance | C_{ob} | $V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$ | | | 40 | pF |
| Transition frequency | f_T | $V_{CE} = 2\text{ V}, I_c = 500\text{ mA}$ | | 120 | | MHz |

■ Classification of h_{FE}

| Type | KTC4375-O | KTC4375-Y |
|---------|-----------|-----------|
| Range | 100-200 | 160-320 |
| Marking | GO | GY |

NPN Transistors

KTC4375

Typical Characteristics

