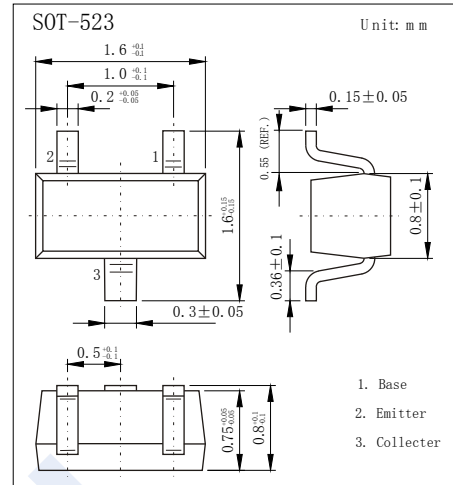


## NPN Transistors

### 2SC4617

#### ■ Features

- Collector Current Capability  $I_c=0.15A$
- Collector Emitter Voltage  $V_{CE0}=50V$
- Low Cob: Cob=2.0pF(Typ)
- Complement to 2SA1774



#### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

| Parameter                      | Symbol    | Rating     | Unit       |
|--------------------------------|-----------|------------|------------|
| Collector - Base Voltage       | $V_{CBO}$ | 60         | V          |
| Collector - Emitter Voltage    | $V_{CEO}$ | 50         |            |
| Emitter - Base Voltage         | $V_{EBO}$ | 7          |            |
| Collector Current - Continuous | $I_c$     | 150        | mA         |
| Collector Power Dissipation    | $P_c$     | 150        | mW         |
| Junction Temperature           | $T_J$     | 150        | $^\circ C$ |
| Storage Temperature Range      | $T_{stg}$ | -55 to 150 |            |

#### ■ Electrical Characteristics $T_a = 25^\circ C$

| Parameter                            | Symbol        | Test Conditions                          | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-----|-----|-----|------|
| Collector- base breakdown voltage    | $V_{CBO}$     | $I_c = 100 \mu A, I_E = 0$               | 60  |     |     | V    |
| Collector- emitter breakdown voltage | $V_{CEO}$     | $I_c = 1 mA, I_B = 0$                    | 50  |     |     |      |
| Emitter - base breakdown voltage     | $V_{EBO}$     | $I_E = 100 \mu A, I_c = 0$               | 7   |     |     |      |
| Collector-base cut-off current       | $I_{CBO}$     | $V_{CB} = 60 V, I_E = 0$                 |     |     | 100 | nA   |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = 7 V, I_c = 0$                  |     |     | 100 |      |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_c = 50 mA, I_B = 5 mA$                |     |     | 0.4 | V    |
| Base - emitter saturation voltage    | $V_{BE(sat)}$ | $I_c = 50 mA, I_B = 5 mA$                |     |     | 1.2 |      |
| DC current gain                      | $h_{FE}$      | $V_{CE} = 6 V, I_c = 1 mA$               | 120 |     | 560 |      |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = 12 V, I_E = 0, f = 1 MHz$      |     |     | 3.5 | pF   |
| Transition frequency                 | $f_T$         | $V_{CE} = 12 V, I_c = 2 mA, f = 100 MHz$ |     | 180 |     | MHz  |

#### ■ Classification of $h_{FE}$

|         |           |           |           |
|---------|-----------|-----------|-----------|
| Marking | 2SC4617-Q | 2SC4617-R | 2SC4617-S |
| Marking | 120-270   | 180-390   | 270-560   |
| Marking | BQ        | BR        | BS        |

## NPN Transistors

## 2SC4617

## ■ Typical Characteristics

