

# SOT-523 Plastic-Encapsulate Transistors

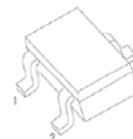
**2SC4617** TRANSISTOR (NPN)

**SOT-523**

## FEATURES

- Low Cob:Cob=2.0pF(Typ)
- Complement to 2SA1774

1. BASE
2. EMITTER
3. COLLECTOR



## MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

| Symbol           | Parameter                     | Value   | Unit |
|------------------|-------------------------------|---------|------|
| V <sub>CB0</sub> | Collector-Base Voltage        | 60      | V    |
| V <sub>CEO</sub> | Collector-Emitter Voltage     | 50      | V    |
| V <sub>EBO</sub> | Emitter-Base Voltage          | 7       | V    |
| I <sub>C</sub>   | Collector Current -Continuous | 150     | mA   |
| P <sub>C</sub>   | Collector Power Dissipation   | 150     | mW   |
| T <sub>J</sub>   | Junction Temperature          | 150     | °C   |
| T <sub>stg</sub> | Storage Temperature           | -55-150 | °C   |

## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

| Parameter                            | Symbol               | Test conditions                                     | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|---|-----|-----|-----|------|
| Collector-base breakdown voltage     | V <sub>(BR)CBO</sub> | I <sub>C</sub> =50uA, I <sub>E</sub> =0             | 60  |     |     | V    |
| Collector-emitter breakdown voltage  | V <sub>(BR)CEO</sub> | I <sub>C</sub> =1mA, I <sub>B</sub> =0              | 50  |     |     | V    |
| Emitter-base breakdown voltage       | V <sub>(BR)EBO</sub> | I <sub>E</sub> =50uA, I <sub>C</sub> =0             | 7   |     |     | V    |
| Collector cut-off current            | I <sub>CBO</sub>     | V <sub>CB</sub> =60V, I <sub>E</sub> =0             |     |     | 0.1 | μA   |
| Emitter cut-off current              | I <sub>EBO</sub>     | V <sub>EB</sub> =7V, I <sub>C</sub> =0              |     |     | 0.1 | μA   |
| DC current gain                      | h <sub>FE</sub>      | V <sub>CE</sub> =6V, I <sub>C</sub> =1mA            | 120 |     | 560 |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =50mA, I <sub>B</sub> =5mA           |     |     | 0.4 | V    |
| Transition frequency                 | f <sub>T</sub>       | V <sub>CE</sub> =12V, I <sub>C</sub> =2mA, f=100MHz |     | 180 |     | MHz  |
| Collector output capacitance         | C <sub>ob</sub>      | V <sub>CB</sub> =12V, I <sub>E</sub> =0, f=1MHz     |     |     | 3.5 | pF   |

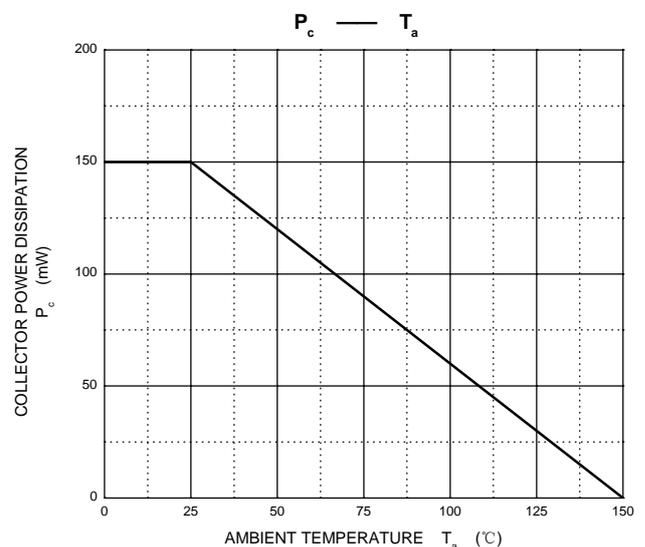
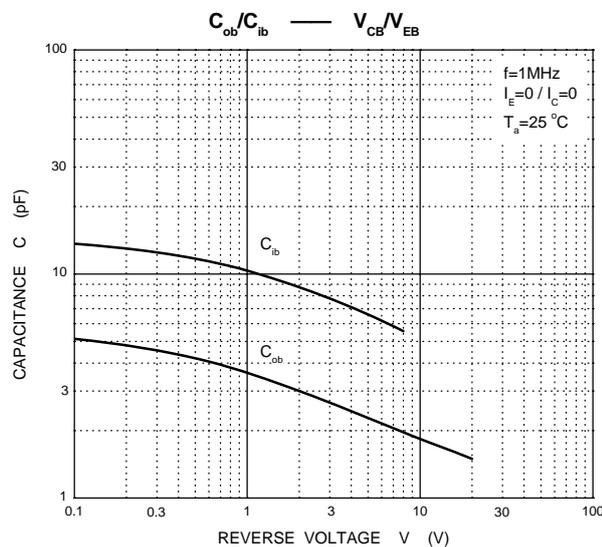
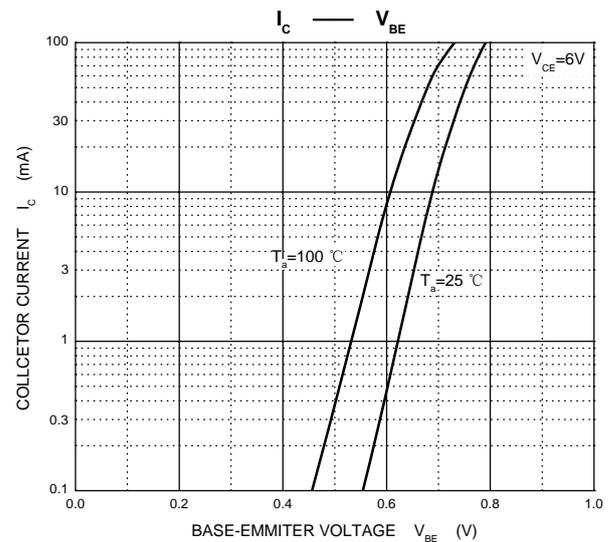
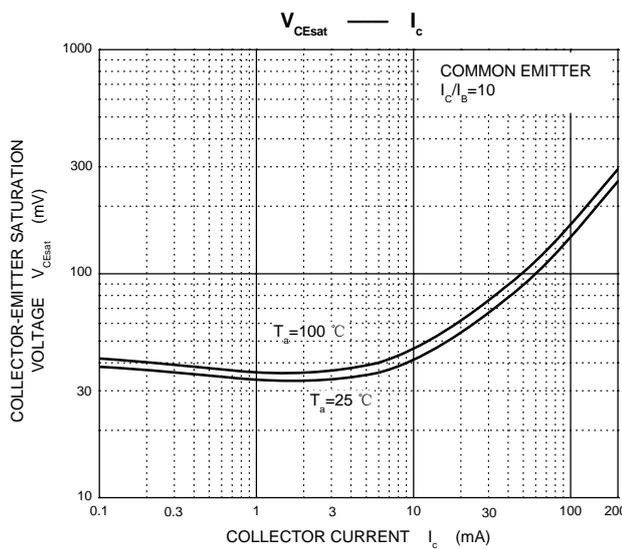
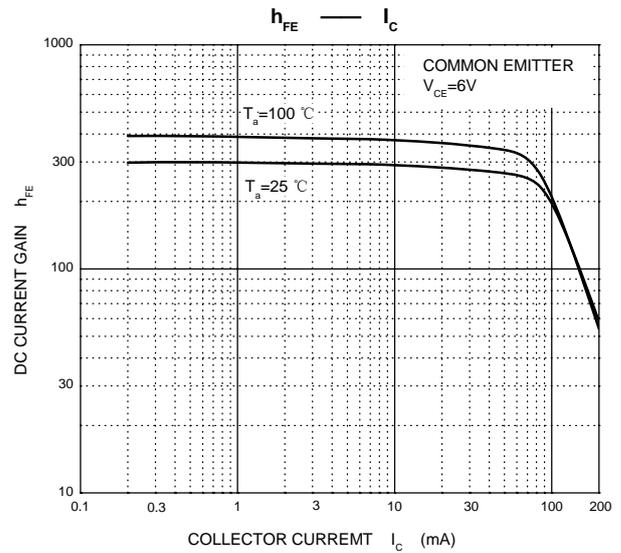
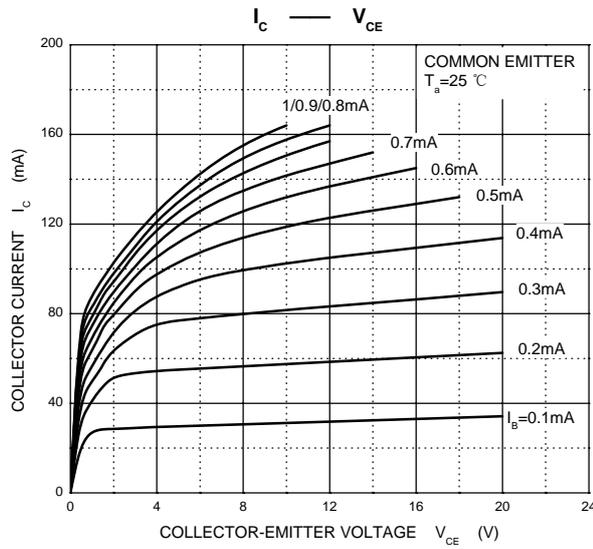
## CLASSIFICATION OF h<sub>FE</sub>

| Rank    | Q       | R       | S       |
|---------|---------|---------|---------|
| Range   | 120-270 | 180-390 | 270-560 |
| Marking | BQ      | BR      | BS      |



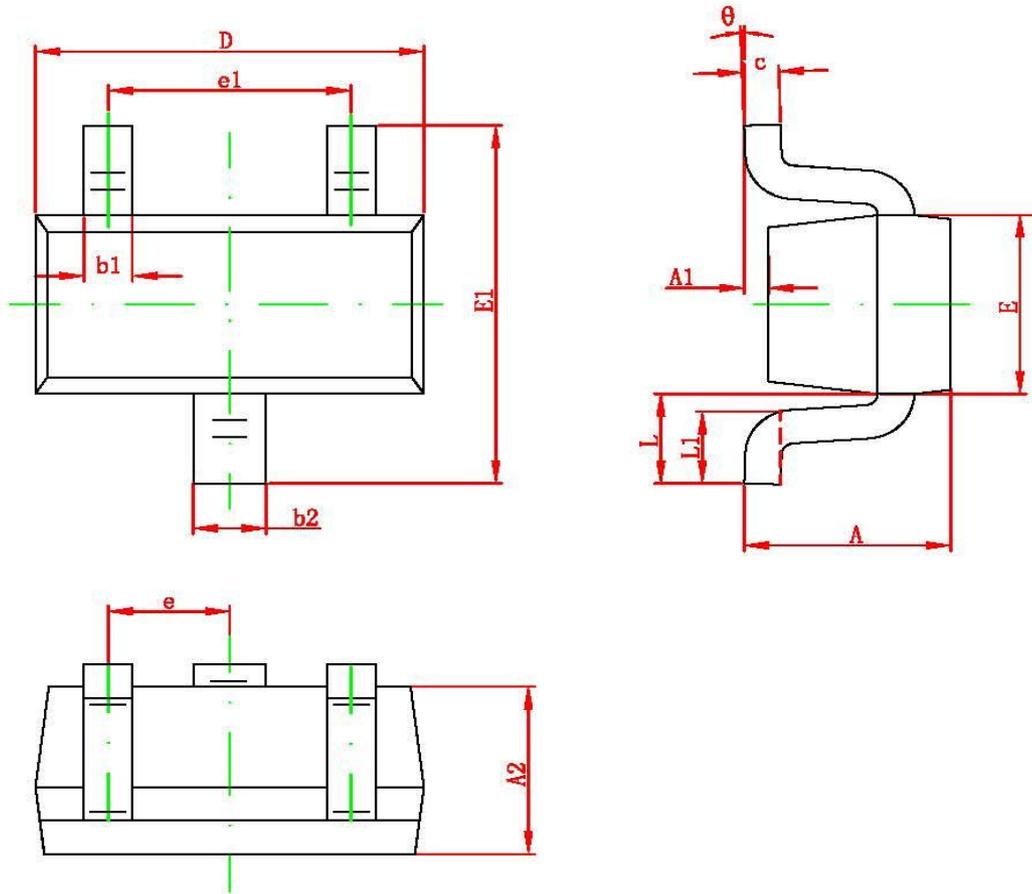
# Typical Characteristics

# 2SC4617





### SOT-523 PACKAGE OUTLINE DIMENSIONS



| Symbol   | Dimensions In Millimeters |       | Dimensions In Inches |       |
|----------|---------------------------|-------|----------------------|-------|
|          | Min.                      | Max.  | Min.                 | Max.  |
| A        | 0.700                     | 0.900 | 0.028                | 0.035 |
| A1       | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2       | 0.700                     | 0.800 | 0.028                | 0.031 |
| b1       | 0.150                     | 0.250 | 0.006                | 0.010 |
| b2       | 0.250                     | 0.350 | 0.010                | 0.014 |
| c        | 0.100                     | 0.200 | 0.004                | 0.008 |
| D        | 1.500                     | 1.700 | 0.059                | 0.067 |
| E        | 0.700                     | 0.900 | 0.028                | 0.035 |
| E1       | 1.450                     | 1.750 | 0.057                | 0.069 |
| e        | 0.500 TYP.                |       | 0.020 TYP.           |       |
| e1       | 0.900                     | 1.100 | 0.035                | 0.043 |
| L        | 0.400 REF.                |       | 0.016 REF.           |       |
| L1       | 0.260                     | 0.460 | 0.010                | 0.018 |
| $\theta$ | 0°                        | 8°    | 0°                   | 8°    |

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Bipolar Transistors - BJT category](#):*

*Click to view products by [Hong Kong Chuangji manufacturer](#):*

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NJVMJD148T4G](#) [NTE123AP-10](#) [NTE153MCP](#) [NTE16](#)  
[NTE195A](#) [NTE92](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [SP000011176](#) [2N2907A](#) [2N3904-](#)  
[NS](#) [2N5769](#) [2SC2412KT146S](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#) [MJE340](#) [Jantx2N5416](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#)  
[CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#) [MMST8098T146](#) [UMX21NTR](#) [MCH6102-TL-E](#) [NJL0302DG](#) [30A02MH-TL-E](#) [NTE13](#) [NTE26](#)  
[NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [STX83003-AP](#) [JANTX2N2920L](#) [JANSR2N2222AUB](#) [CMLT3946EG TR](#) [2SA1371D-AE](#)