# TL-2SC2412

SOT23 Plastic-Encapsulate Transistors (NPN)

## Features

- Low Cob ,Cob = 2.0 pF (Typ).

SOT23

## Absolute Maximum Ratings($T_A$=25℃)

| Symbol | Parameter | Value | Uniat |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 60 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 50 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 7 | V |
| $I_C$ | Collector Current | 0.15 | A |
| $P_C$ | Collector Power Dissipation | 200 | mW |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 625 | ℃/W |
| $T_J$,$T_{stg}$ | Operation Junction And Storage Temperature Range | -55 ~ +150 | ℃ |

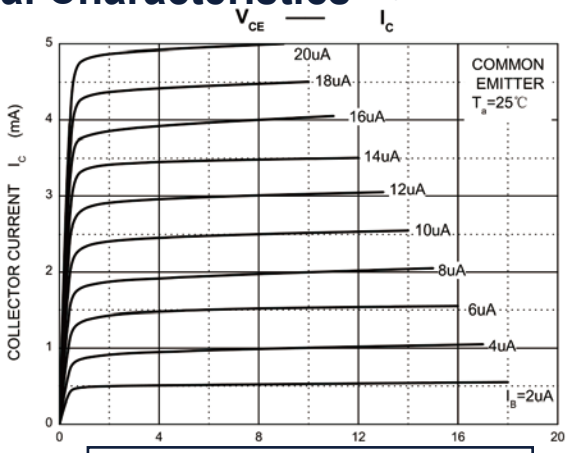
## Electrical Characteristics ($T_A$=25℃ unless otherwise specified)

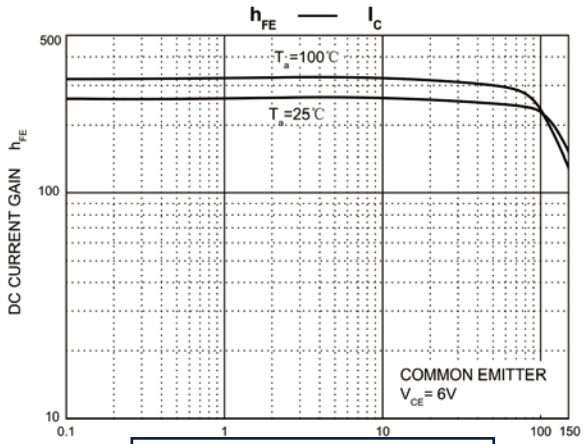
| Symbol | Parameter | Test conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| $V_{(BR)CBO}$ | Collector-base breakdown voltage | $I_C$=50μA, $I_E$=0 | 60 | | | V |
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage | $I_C$=1mA, $I_B$=0 | 50 | | | V |
| $V_{(BR)EBO}$ | Emitter-base breakdown voltage | $I_E$=50μA, $I_C$=0 | 7 | | | V |
| $I_{CBO}$ | Collector cut-off current | $V_{CB}$=60V, $I_E$=0 | | | 0.1 | μA |
| $I_{EBO}$ | Emitter cut-off current | $V_{EB}$=7V, $I_C$=0 | | | 0.1 | μA |
| $h_{FE}$ | DC current gain | $V_{CE}$=6V, $I_C$=1mA | 120 | | 560 | |
| $V_{CE(sat)}$ | Collector-emitter saturation voltage | $I_C$=50mA, $I_B$=5mA | | | 0.4 | V |
| $f_T$ | Transition frequency | $V_{CE}$=12V,$I_C$=2mA,f=100MHz | | 160 | | MHz |
| $C_{ob}$ | Collector output capacitance | $V_{CB}$=12V,$I_E$=0,f=1MHz | | 2.0 | 3.5 | pF |

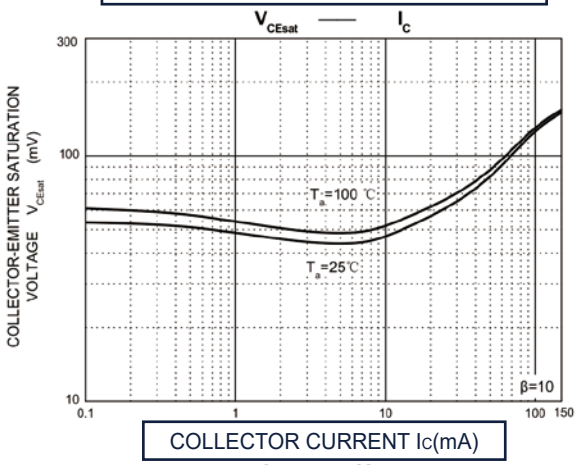
## Ordering information

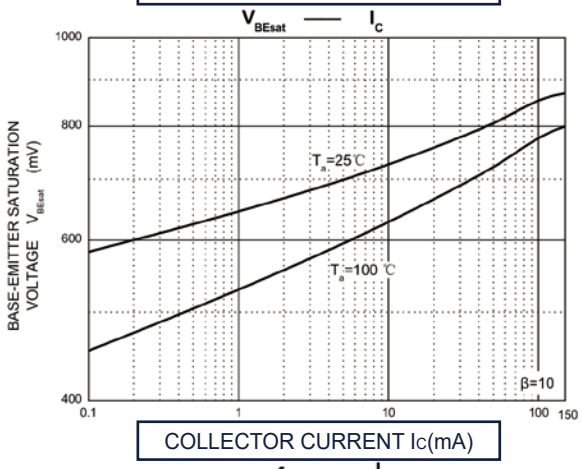
| Product ID | Pack | Naming rule | Marking | hFE(1) | Qty(PCS) |
|---|---|---|---|---|---|
| 2SC2412 | SOT23 | 2SC2412<br>产品名称<br>product name | BR | 180-390 | 3000 |

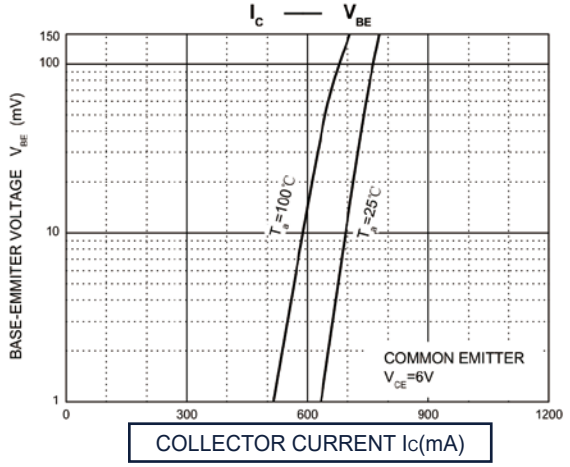
## Typical Characteristics

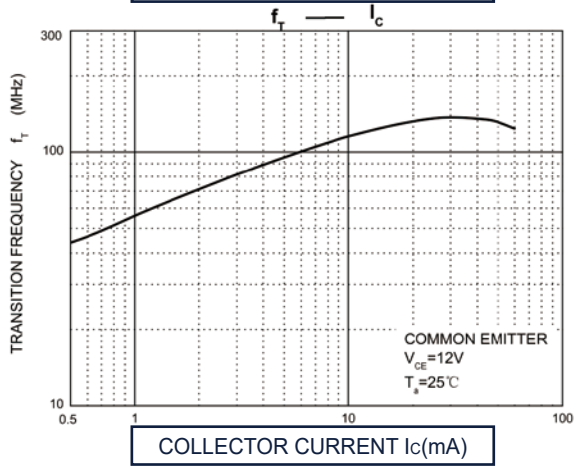


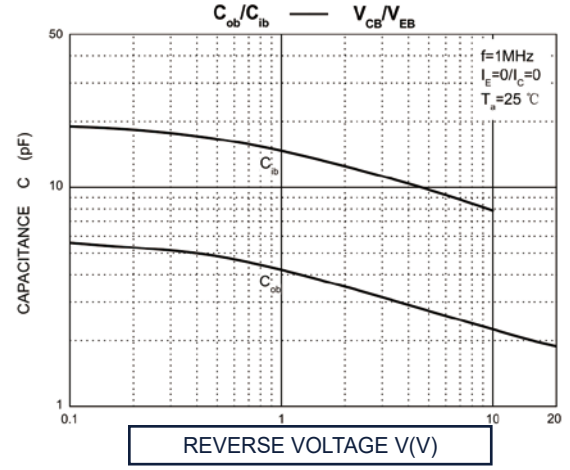



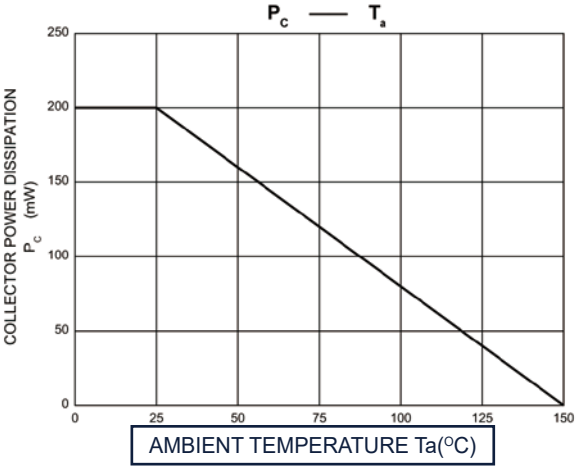



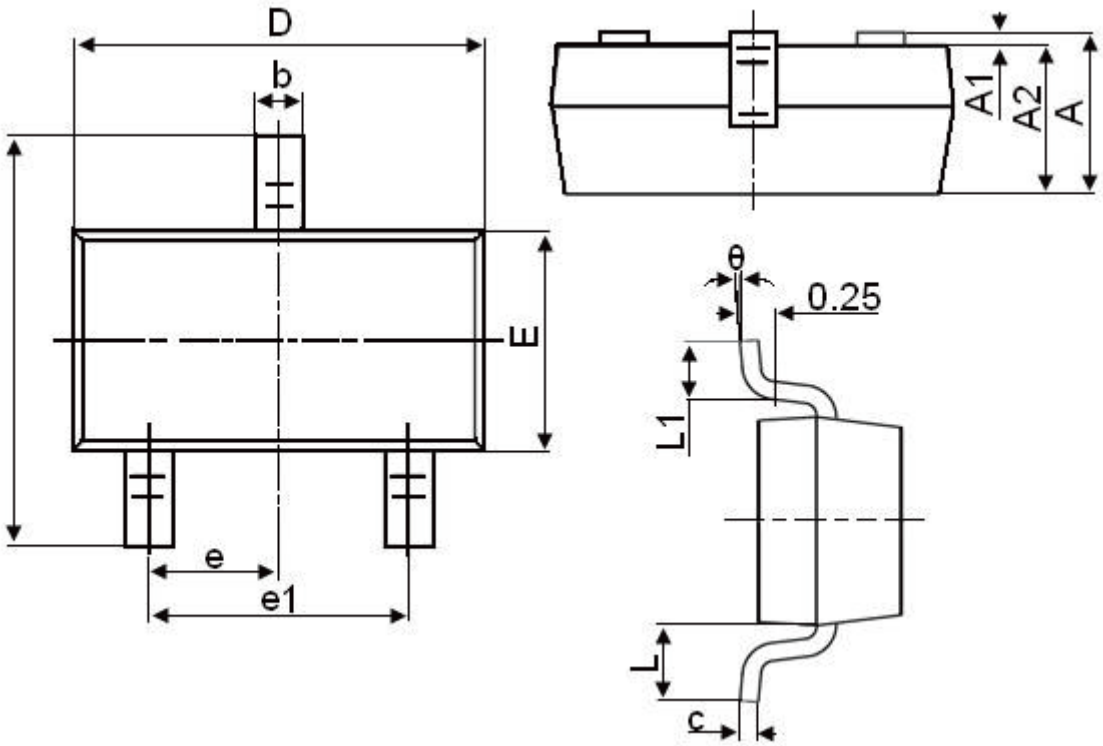



## SOT23 Package Outline Dimensions




| Symbol | Dimensions in Millimeters | |
|---|---|---|
| | mm | |
| | Min | Max |
| A | 0.900 | 1.150 |
| A1 | 0.000 | 0.100 |
| A2 | 0.900 | 1.050 |
| b | 0.300 | 0.500 |
| c | 0.080 | 0.150 |
| D | 2.800 | 3.000 |
| E | 1.200 | 1.400 |
| E1 | 2.250 | 2.550 |
| e | 0.950TYP | |
| e1 | 1.800 | 2.000 |
| L | 0.550REF | |
| L1 | 0.300 | 0.500 |
| θ | 0° | 8° |