# GL157

**PNP SILICON PLANAR HIGH PERFORMANCE TRANSISTOR**

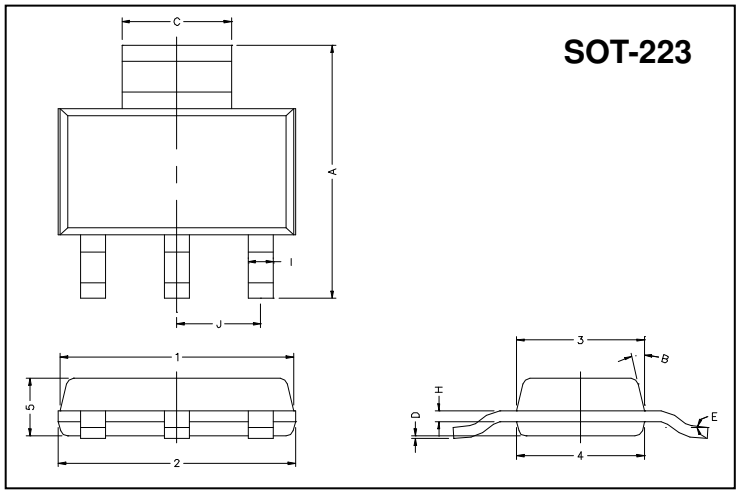
## Description

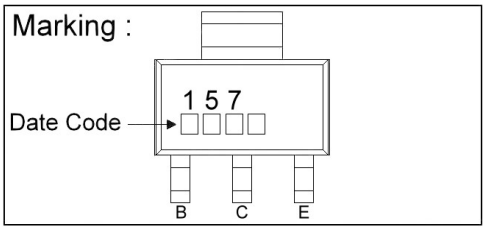
The GL157 is designed for general purpose switching and amplifier applications.

## Features

- -60 Volt $V_{CEO}$
- 3 Amp continuous current
- Low saturation voltage

## Package Dimensions




| REF. | Millimeter | | REF. | Millimeter | |
|---|---|---|---|---|---|
| | Min. | Max. | | Min. | Max. |
| A | 6.70 | 7.30 | B | 13°TYP. | |
| C | 2.90 | 3.10 | J | 2.30 REF. | |
| D | 0.02 | 0.10 | 1 | 6.30 | 6.70 |
| E | 0° | 10° | 2 | 6.30 | 6.70 |
| I | 0.60 | 0.80 | 3 | 3.30 | 3.70 |
| H | 0.25 | 0.35 | 4 | 3.30 | 3.70 |
| | | | 5 | 1.40 | 1.80 |

## Absolute Maximum Ratings at Ta = 25℃

| Parameter | Symbol | Ratings | Unit |
|---|---|---|---|
| Junction Temperature | Tj | +150 | ℃ |
| Storage Temperature | Tstg | -55~+150 | ℃ |
| Collector to Base Voltage | $V_{CBO}$ | -80 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | -60 | V |
| Emitter to Base Voltage | $V_{EBO}$ | -5 | V |
| Collector Current (DC) | $I_C$ | -3 | A |
| Collector Current (Pulse) | $I_C$ | -6 | A |
| Total Power Dissipation | $P_D$ | 2 | W |

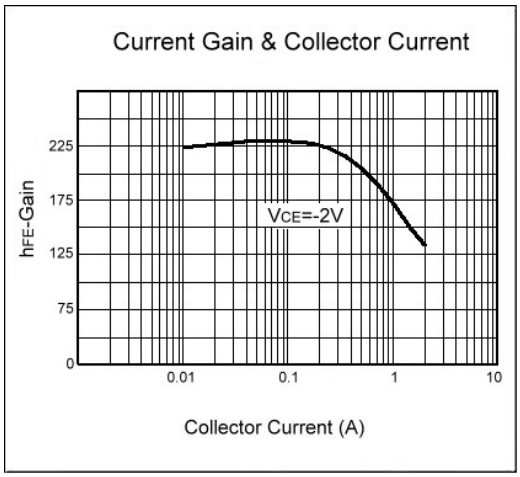
## Electrical Characteristics(Ta = 25℃,unless otherwise noted)

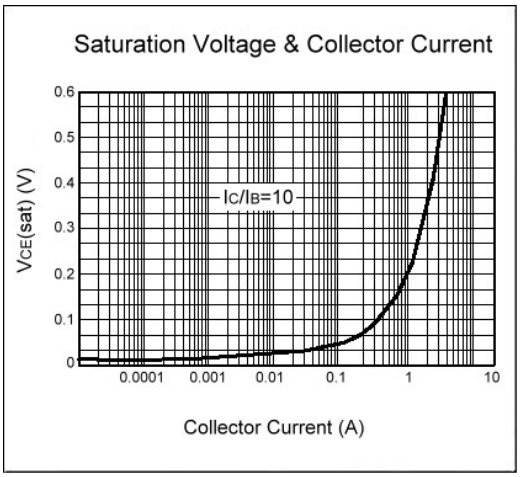
| Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|---|---|---|---|---|---|
| $BV_{CBO}$ | -80 | - | - | V | $I_C$=-100uA , $I_E$=0 |
| *$BV_{CEO}$ | -60 | - | - | V | $I_C$=-10mA, $I_B$=0 |
| $BV_{EBO}$ | -5 | - | - | V | $I_E$=-100uA ,$I_C$=0 |
| $I_{CBO}$ | - | - | -100 | nA | $V_{CB}$=-60V, $I_E$=0 |
| $I_{EBO}$ | - | - | -100 | nA | $V_{EB}$=-4V, $I_C$=0 |
| *$V_{CE(sat)}$1 | - | -150 | -300 | mV | $I_C$=-1A, $I_B$=-100mA |
| *$V_{CE(sat)}$2 | - | -450 | -600 | mV | $I_C$=-3A, $I_B$=-300mA |
| *$V_{BE(sat)}$ | - | -0.9 | -1.25 | V | $I_C$=-1A, $I_B$=-100mA |
| *$V_{BE(on)}$ | - | -0.8 | -1.0 | V | $V_{CE}$=-2V, $I_C$=-1A |
| *$h_{FE}$1 | 70 | 200 | | | $V_{CE}$=-2V, $I_C$=-50mA |
| *$h_{FE}$2 | 100 | 200 | 300 | | $V_{CE}$=-2V, $I_C$=-500mA |
| *$h_{FE}$3 | 80 | 170 | | | $V_{CE}$=-2V, $I_C$=-1A |
| *$h_{FE}$4 | 40 | 150 | | | $V_{CE}$=-2V, $I_C$=-2A |
| fT | 100 | 140 | - | MHz | $V_{CE}$=-5V, $I_C$=-100mA, f=100MHz |
| Cob | - | - | 30 | pF | $V_{CB}$=-10V, $I_E$=0, f=1MHz |
| $t_{on}$ | - | 40 | - | ns | $V_{CC}$=-10V, $I_C$=-500mA, $I_{B1}$=$I_{B2}$=-50mA |
| $t_{off}$ | - | 450 | - | | |

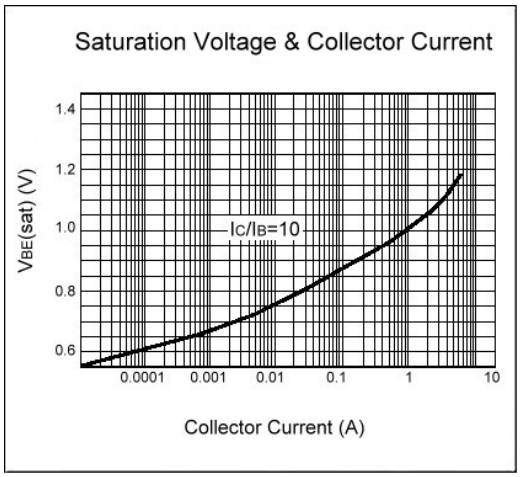
***Measured under pulse condition. Pulse width≦300μs, Duty Cycle≦2%**

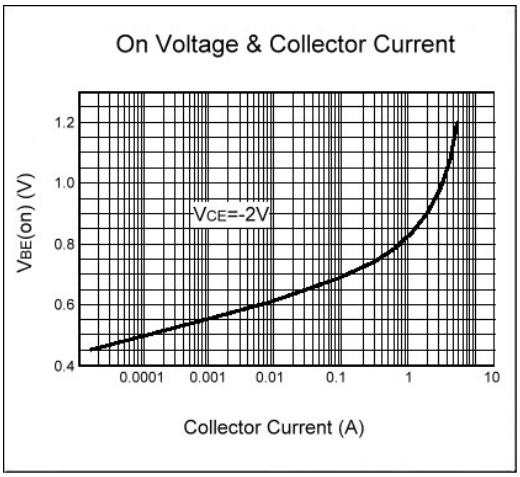
**Spice parameter data is available upon request for this device.**

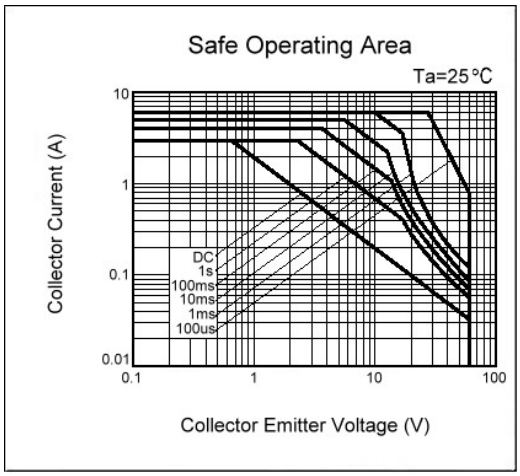
## Characteristics Curve

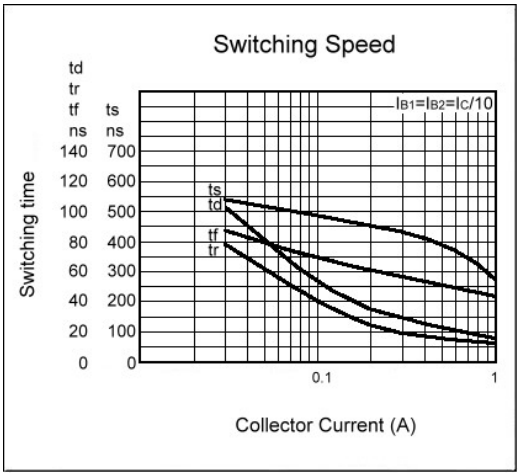


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