

GL949

PNP SILICON PLANAR HIGH CURRENT TRANSISTOR

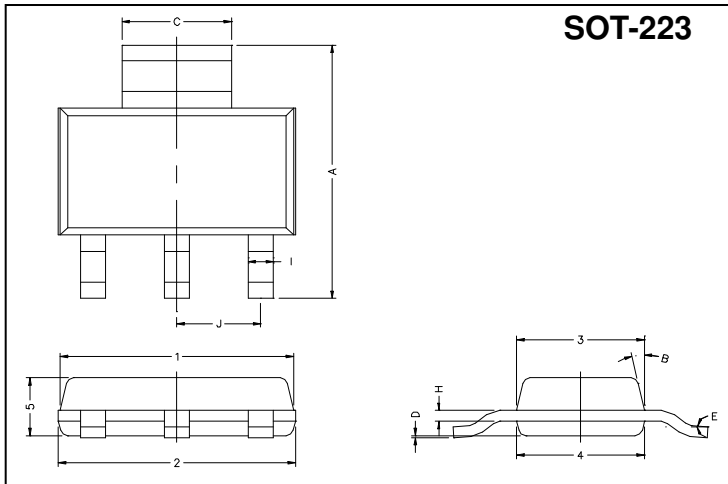
Description

The GL949 is designed for general purpose switching and amplifier applications.

Features

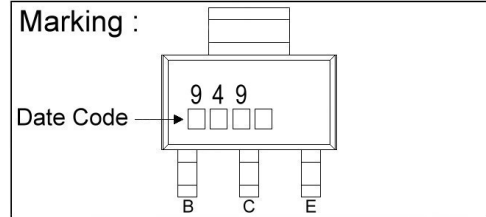
- 6Amps continuous current, up to 20Amps pulse current
- &Very low saturation voltages

Package Dimensions



SOT-223

Marking :



| 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 | VcBO | -50 | V |
| Collector to Emitter Voltage | VCE0 | -30 | V |
| Emitter to Base Voltage | VEBO | -6 | V |
| Collector Current (DC) | Ic | -5.5 | A |
| Collector Current (Pulse) | ICM | -20 | A |
| Total Power Dissipation | Pd | 3 | W |

*The power which can be dissipated assuming the device is mounted in typical manner on a PCB with copper equal to 2 inches x 2 inches.

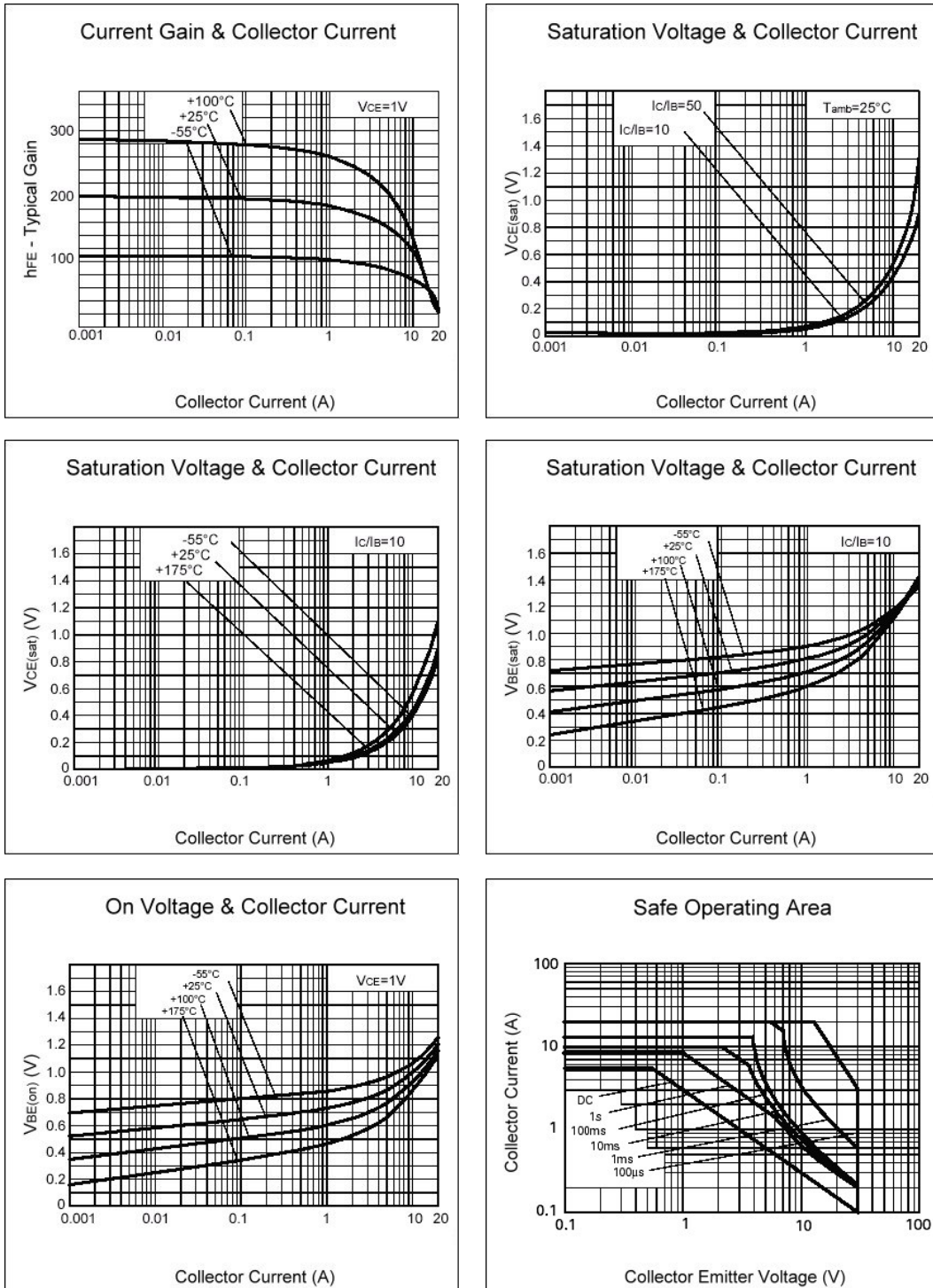
Electrical Characteristics (Ta = 25 : , unless otherwise stated)

| Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|------------|------|------|-------|------|------------------------------|
| BVcBO | -50 | - | - | V | Ic=-100uA , IE=0 |
| BVCER | -50 | - | - | V | Ic=-1uA, RB≤1kΩ |
| BVCEO | -30 | - | - | V | Ic=-10mA, IB=0 |
| BVEBO | -6 | - | - | V | IE=-100uA , Ic=0 |
| IcBO | - | - | -50 | nA | VcB=-40V, IE=0 |
| ICER | - | - | -50 | nA | VcB=-40V, R≤1kΩ |
| IEBO | - | - | -10 | nA | VEB=-6V, Ic=0 |
| *VCE(sat)1 | - | - | -75 | mV | Ic=-500mA, IB=-20mA |
| *VCE(sat)2 | - | - | -140 | mV | Ic=-1A, IB=-20mA |
| *VCE(sat)3 | - | - | -270 | mV | Ic=-2A, IB=-200mA |
| *VCE(sat)4 | - | - | -440 | mV | Ic=-5.5A, IB=-500mA |
| *VBE(sat) | - | - | -1.25 | V | Ic=-5.5A, IB=-500mA |
| *VBE(on) | - | - | -1.06 | V | VCE=-1V, Ic=-5.5A |
| *hFE1 | 100 | - | - | | VCE=-1V, Ic=-10mA |
| *hFE2 | 100 | - | 300 | | VCE=-1V, Ic=-1A |
| *hFE3 | 75 | - | - | | VCE=-1V, Ic=-5A |
| *hFE4 | - | 35 | - | | VCE=-2V, Ic=-20A |
| fT | - | 100 | - | MHz | VCE=-10V, Ic=-100mA, f=50MHz |
| Cob | - | 122 | - | pF | VcB=-10V, IE=0, f=1MHz |

| | | | | | |
|------|---|-----|---|----|---|
| Ton | - | 120 | - | ns | V _{CC} =-10V, I _C =-4A, I _{B1} =-I _{B2} =-400mA |
| Toff | - | 130 | - | | |

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

Characteristics Curve



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