



# SANYO Semiconductors DATA SHEET

## 2SC6092LS — NPN Triple Diffused Planar Silicon Transistor Color TV Horizontal Deflection Output Applications

### Features

- High speed.
- High breakdown voltage ( $V_{CBO}=1500V$ ).
- Adoption of high reliability HVP process.
- Adoption of MBIT process.

### Specifications

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

| Parameter                    | Symbol    | Conditions       | Ratings     | Unit       |
|------------------------------|-----------|------------------|-------------|------------|
| Collector-to-Base Voltage    | $V_{CBO}$ |                  | 1500        | V          |
| Collector-to-Emitter Voltage | $V_{CEO}$ |                  | 700         | V          |
| Emitter-to-Base Voltage      | $V_{EBO}$ |                  | 5           | V          |
| Collector Current            | $I_C$     |                  | 8           | A          |
| Collector Current (Pulse)    | $I_{CP}$  |                  | 20          | A          |
| Collector Dissipation        | $P_C$     |                  | 2.0         | W          |
|                              |           | $T_c=25^\circ C$ | 35          | W          |
| Junction Temperature         | $T_j$     |                  | 150         | $^\circ C$ |
| Storage Temperature          | $T_{stg}$ |                  | -55 to +150 | $^\circ C$ |

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

| Parameter                 | Symbol         | Conditions                     | Ratings |     |     | Unit    |
|---------------------------|----------------|--------------------------------|---------|-----|-----|---------|
|                           |                |                                | min     | typ | max |         |
| Collector Cutoff Current  | $I_{CBO}$      | $V_{CB}=800V, I_E=0A$          |         |     | 10  | $\mu A$ |
| Collector Cutoff Current  | $I_{CES}$      | $V_{CE}=1500V, R_{BE}=0\Omega$ |         |     | 10  | mA      |
| Collector Sustain Voltage | $V_{CEO(sus)}$ | $I_C=100mA, I_B=0A$            | 700     |     |     | V       |
| Emitter Cutoff Current    | $I_{EBO}$      | $V_{EB}=4V, I_C=0A$            |         |     | 1   | mA      |

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N2107KC TI IM TC-00000764 No. A0834-1/4

# 2SC6092LS

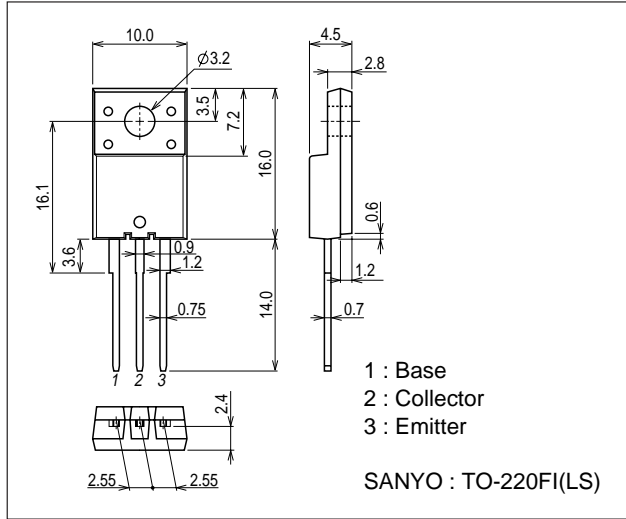
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| Parameter                               | Symbol         | Conditions                          | Ratings |     |     | Unit    |
|---|----------------|-------------------------------------|---------|-----|-----|---------|
|   |                |                                     | min     | typ | max |         |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)1}$ | $I_C=2.25A, I_B=0.45A$              | 0.1     |     | 0.3 | V       |
|   | $V_{CE(sat)2}$ | $I_C=4.5A, I_B=0.9A$                |         |     | 2   | V       |
| Base-to-Emitter Saturation Voltage      | $V_{BE(sat)}$  | $I_C=4.5A, I_B=0.9A$                |         |     | 1.5 | V       |
| DC Current Gain                         | $h_{FE1}$      | $V_{CE}=5V, I_C=1A$                 | 10      |     |     |         |
|   | $h_{FE2}$      | $V_{CE}=5V, I_C=5A$                 | 5.3     |     | 7.5 |         |
| Fall Time                               | $t_f$          | $I_C=3A, I_{B1}=0.6A, I_{B2}=-1.2A$ |         |     | 0.2 | $\mu s$ |

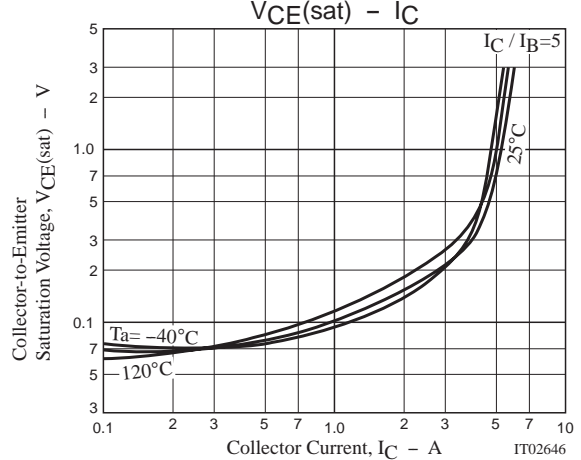
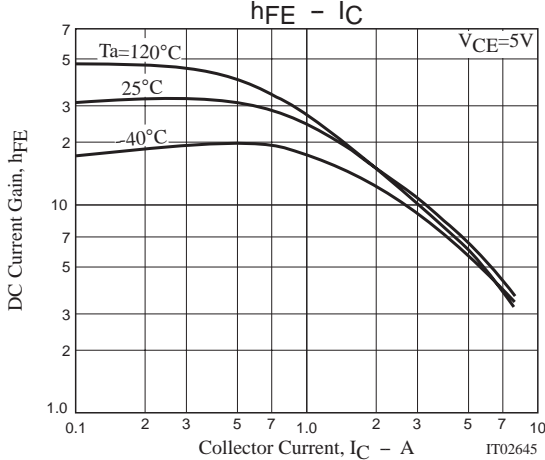
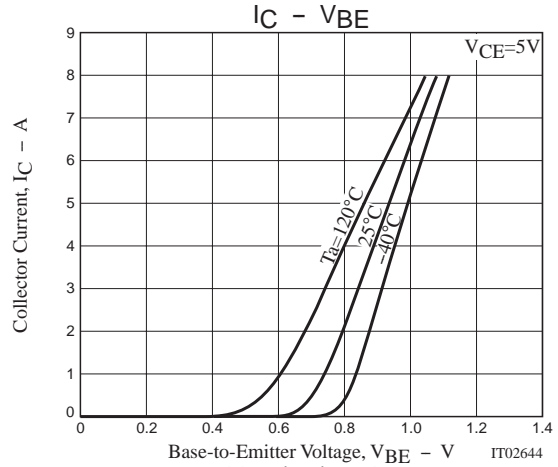
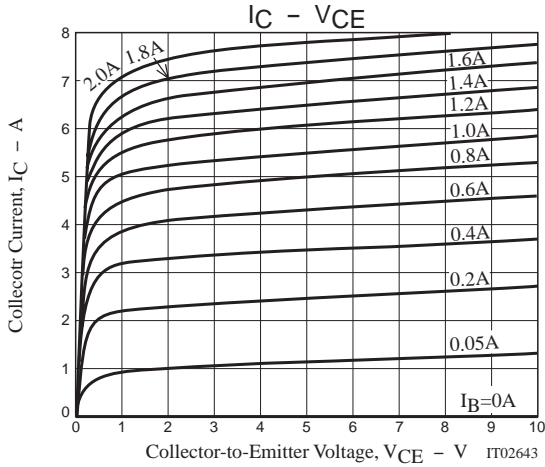
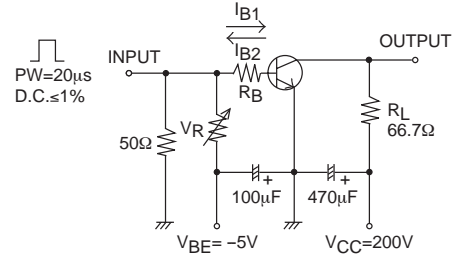
## Package Dimensions

unit : mm (typ)

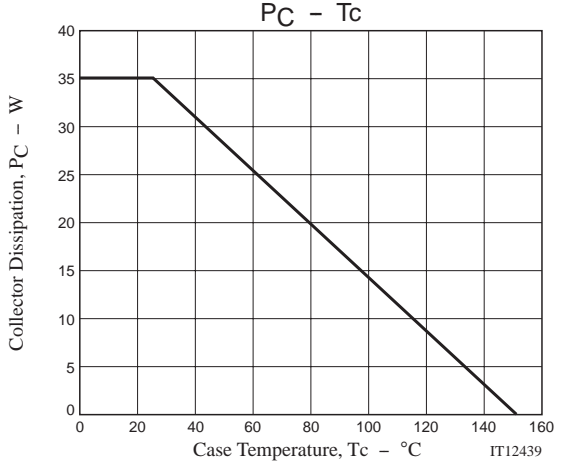
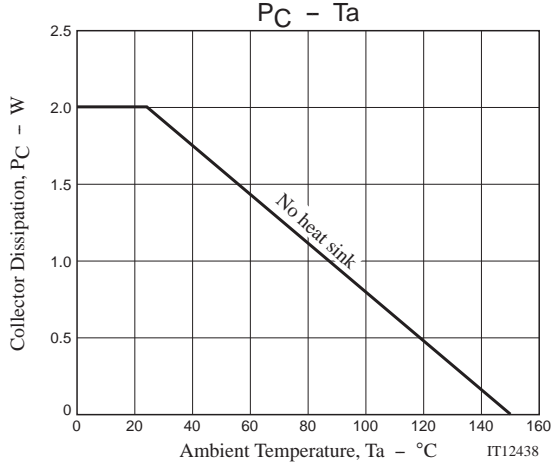
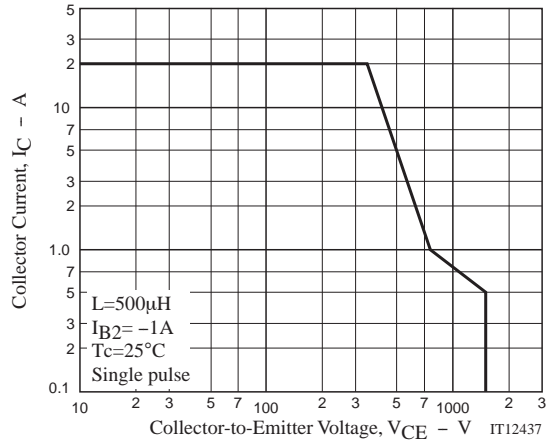
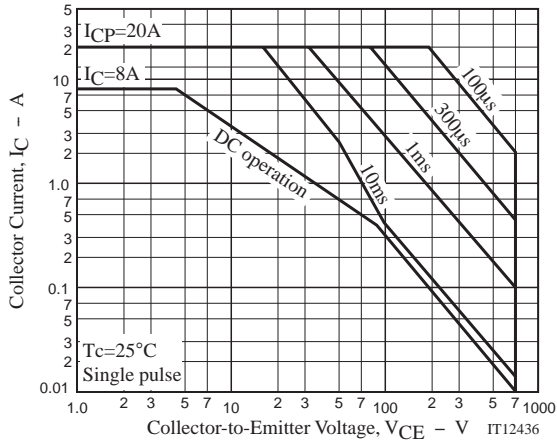
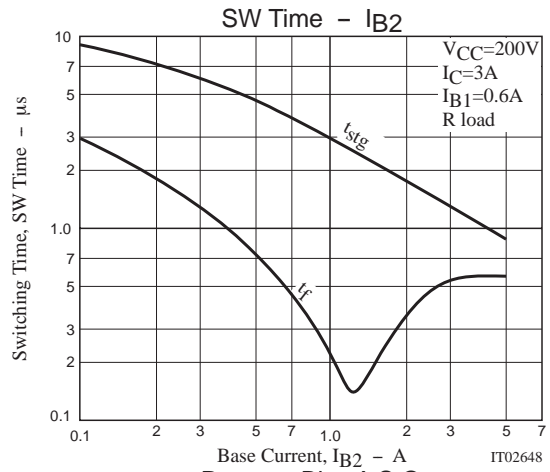
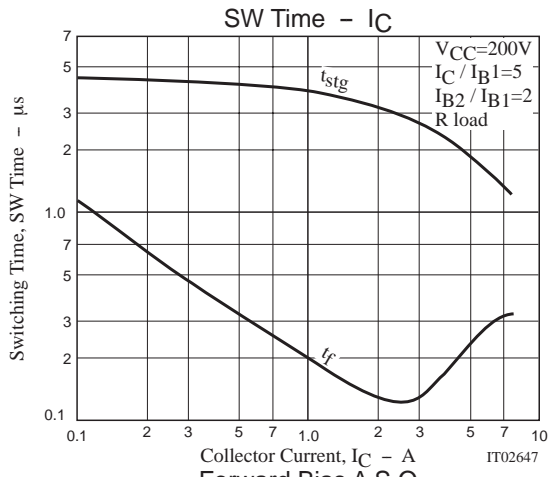
7509-003



## Switching Time Test Circuit



# 2SC6092LS



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