

2SC5451

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

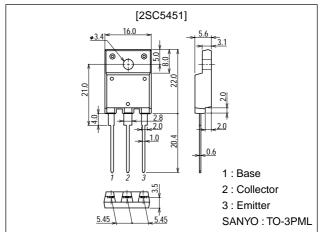
Features

- · High speed.
- · High breakdown voltage (V_{CBO}=1600V).
- · High reliability (Adoption of HVP process).
- · Adoption of MBIT process.

Package Dimensions

unit:mm

2039D



Specifications

Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|------------------|------------|-------------|------|
| Collector-to-Base Voltage | V _{CBO} | | 1600 | V |
| Collector-to-Emitter Voltage | VCEO | | 800 | V |
| Emitter-to-Base Voltage | V _{EBO} | | 6 | V |
| Collector Current | IC | | 15 | Α |
| Collector Current (Pulse) | I _{CP} | | 35 | Α |
| Collector Dissipation | PC | | 3 | W |
| | 10 | Tc=25°C | 75 | W |
| Junction Temperature | Tj | | 150 | °C |
| Storage Temperature | Tstg | | -55 to +150 | °C |

Electrical Characteristics at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--------------------------------------|-----------------------|--|---------|-----|-----|-------|
| | Gymbor | | min | typ | max | O'III |
| Collector Cutoff Current | ICES | V _{CE} =1600V, R _{BE} =0 | | | 1.0 | mA |
| Collector-to-Emitter Sustain Voltage | V _{CEO(sus)} | I _C =100mA, I _B =0 | 800 | | | V |
| Emitter Cutoff Current | I _{EBO} | V _{EB} =4V, I _C =0 | | | 1.0 | mA |
| Collector Cutoff Current | ICBO | V _{CB} =800V, I _E =0 | | | 10 | μΑ |
| DC Current Gain | h _{FE} 1 | V _{CE} =5V, I _C =1.0A | 15 | | 30 | |
| | h _{FE} 2 | V _{CE} =5V, I _C =11A | 4 | | 7 | |

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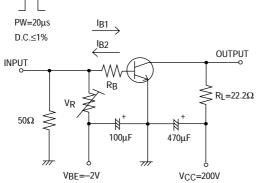
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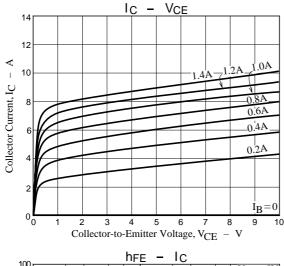
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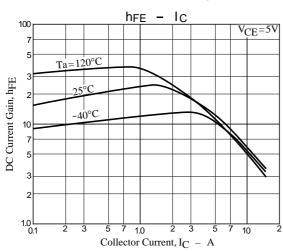
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|----------------------|--|---------|-----|-----|-------|
| | | | min | typ | max | Offic |
| Collector-to-Emitter Saturation Voltage | V _{CE(sat)} | I _C =11A, I _B =2.75A | | | 5 | V |
| Base-to-Emitter Saturation Voltage | V _{BE(sat)} | I _C =11A, I _B =2.75A | | | 1.5 | V |
| Storage Time | t _{stg} | I _C =9A, I _{B1} =1.5A, I _{B2} =-3.75A | | | 3.0 | μs |
| Fall Time | t _f | I _C =9A, I _{B1} =1.5A, I _{B2} =-3.75A | | | 0.2 | μs |

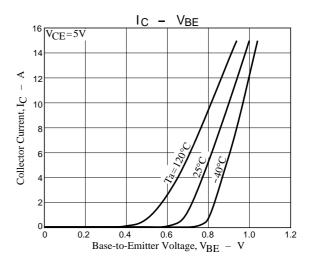
Switching Time Test Circuit

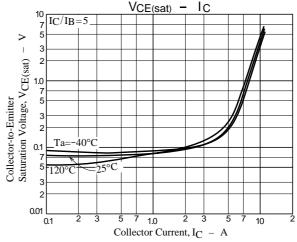
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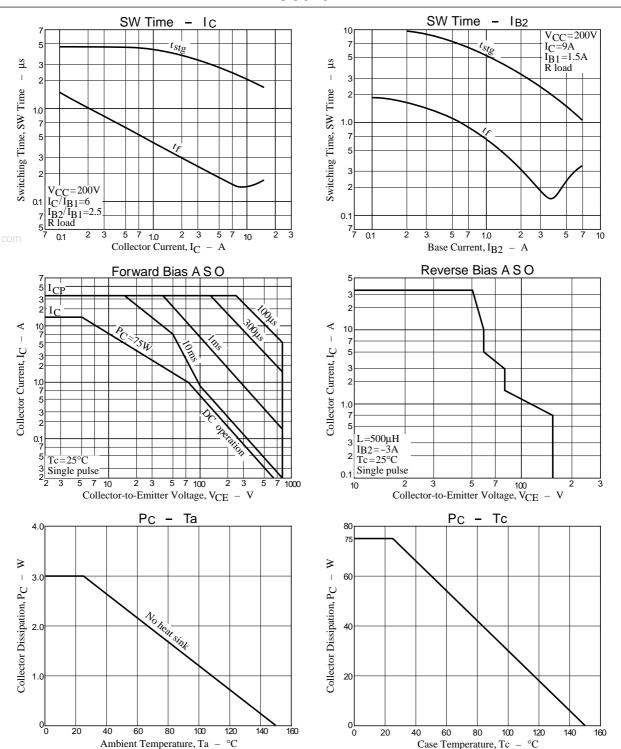












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