

# SPECIFICATION

DEVICE NAME : BIPOLAR TRANSISTOR

TYPE NAME : 2SC4603R

SPEC. No. :

DATE :

Fuji Electric Co.,Ltd.

This Specification is subject to change without notice.

|         |      |      |          |         |  |  |  |  |  |  |  |
|---------|------|------|----------|---------|--|--|--|--|--|--|--|
|         | DATE | NAME | APPROVED |         | <b>Fuji Electric Co.,Ltd.</b>  |  |  |  |  |  |  |
| DRAWN   |      |      |          |         |  |  |  |  |  |  |  |
| CHECKED |      |      |          | DWG.NO. |  |  |  |  |  |  |  |
|         |      |      |          |         | <table border="1" style="border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table> |  |  |  |  |  |  |
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|         |      |      |          |         |  |  |  |  |  |  |  |

Ratings and Characteristics of Fuji Power Transistor

2 S C 4 6 0 3 R

1. Outline Drawing : To-3PF
2. Absolute Maximum Ratings (Tc=25°C)

| Item                      | Symbol | Maximum Rating  | Unit |
|---------------------------|--------|-----------------|------|
| Collector-Base Voltage    | VCBO   | 9 0 0           | V    |
| Collector-Emitter Voltage | VCEO   | 8 0 0           |      |
| Emitter-Base Voltage      | VEBO   | 1 0             |      |
| Collector Current         | IC     | 3               | A    |
| Base Current              | IB     | 1               |      |
| Collector Dissipation     | PC     | 8 0             | W    |
| Operating Temperature     | Tj     | + 1 5 0         | °C   |
| Storage Temperature       | Tstg   | - 5 5 ~ + 1 5 0 |      |

3. Electrical Characteristics (Tc=25°C)

| Items                        | Symbol   | Conditions   | Min | Max | Unit |
|------------------------------|----------|--|-----|-----|------|
| Collector-Base Voltage       | VCBO     | ICBO = 1mA   | 900 |     | V    |
| Collector-Emitter Voltage    | VCEO     | ICED = 10mA  | 800 |     |      |
| Emitter-Base Voltage         | VEBO     | IEBO = 1mA   | 10  |     |      |
| Collector Cutoff Current     | ICBO     | VCB = 900V   |     | 1.0 | mA   |
| Emitter Cutoff Current       | IEBO     | VEBO = 10V   |     | 1.0 |      |
| DC Current Gain              | hFE      | IC=1A, VCE=5V  | 10  |     |      |
| Collector Saturation Voltage | VCE(sat) | IC = 1A.   |     | 1.0 | V    |
| Emitter Saturation Voltage   | VBE(sat) | IB = 0.2A  |     | 1.5 |      |
| Switching Time               | ton      | IC = 2A, Duty ≤ 2%<br>IB1 = +0.4A.<br>IB2 = -0.8A.<br>PW = 20 μs.<br>RL = 150Ω |     | 1.0 | μs   |
|                              | tstg     |  |     | 4.0 |      |
|                              | tf       |  |     | 0.8 |      |

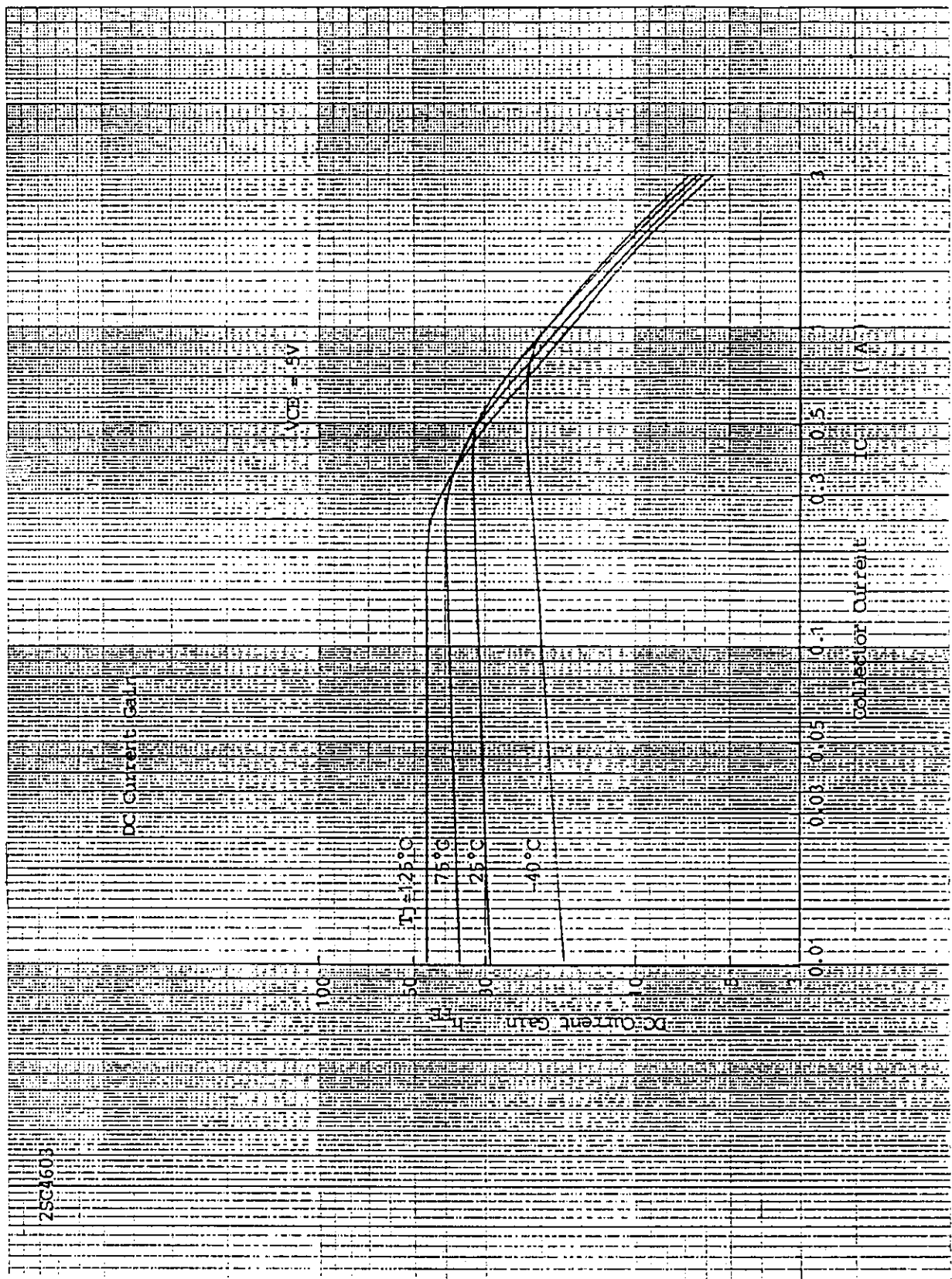
4. Thermal Characteristics

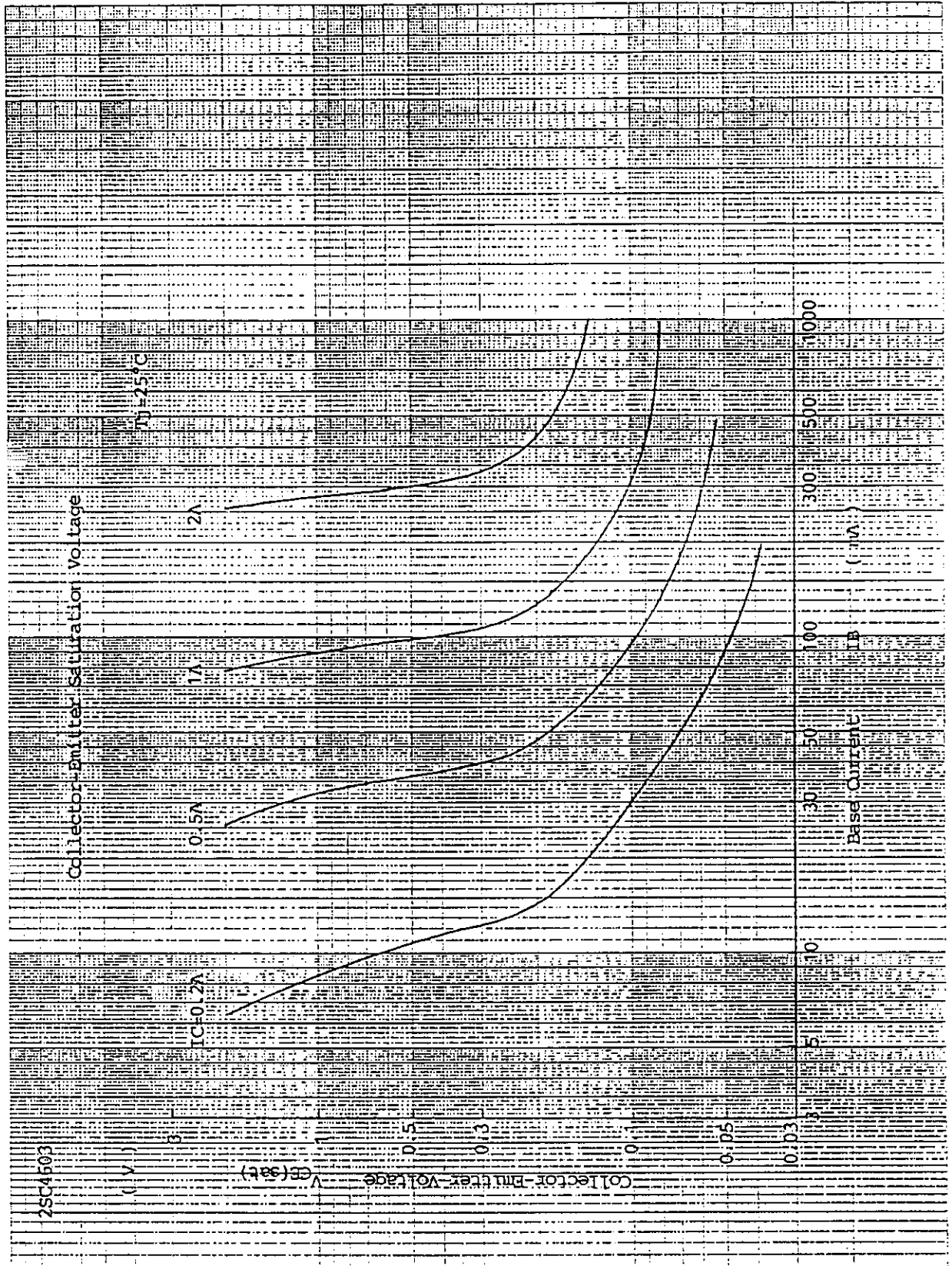
| Item               | Symbol   | Conditions       | Min | Max  | Unit |
|--------------------|----------|------------------|-----|------|------|
| Thermal Resistance | Rth(j-c) | Junction to Case |     | 1.55 | °C/W |

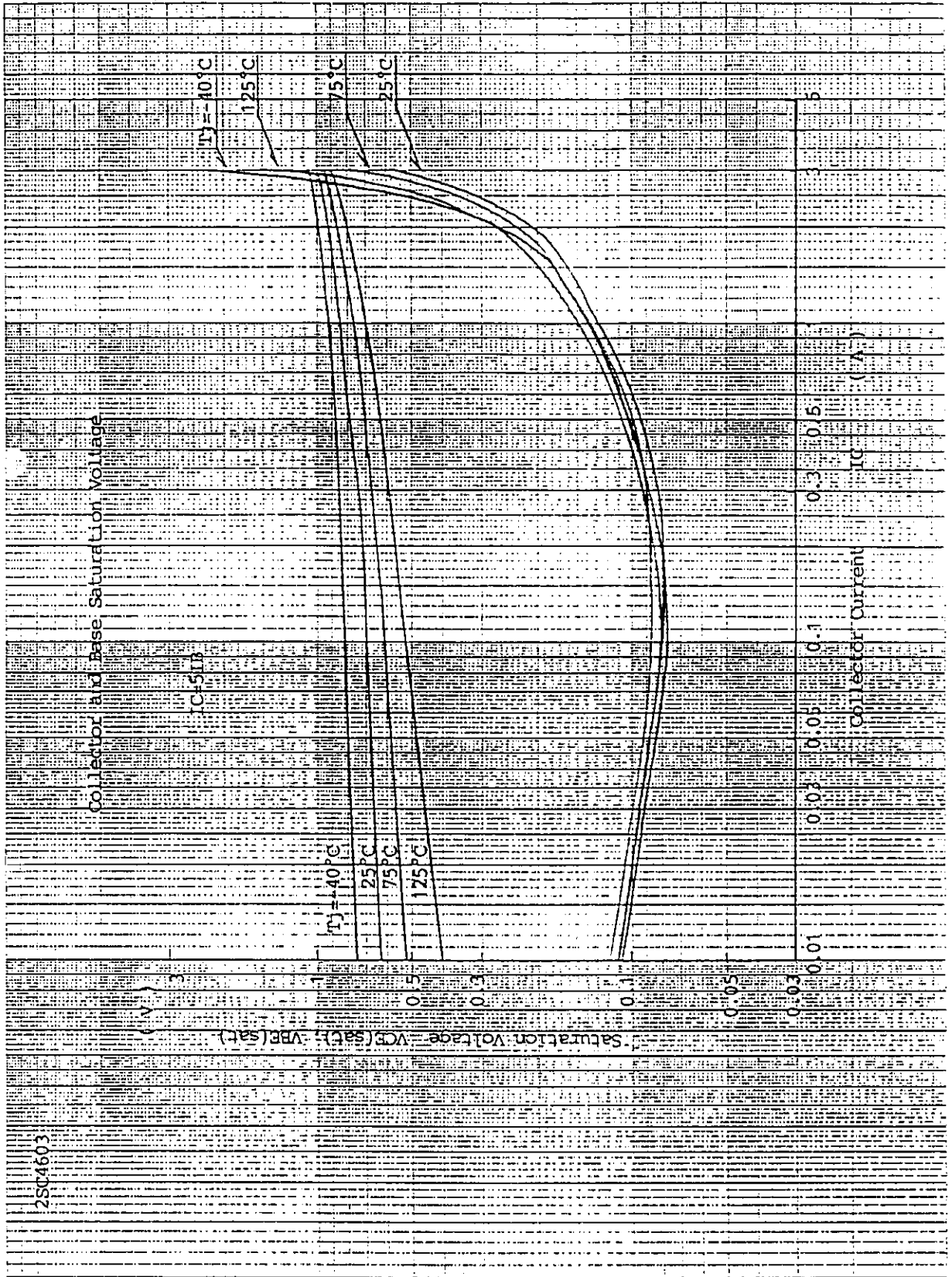
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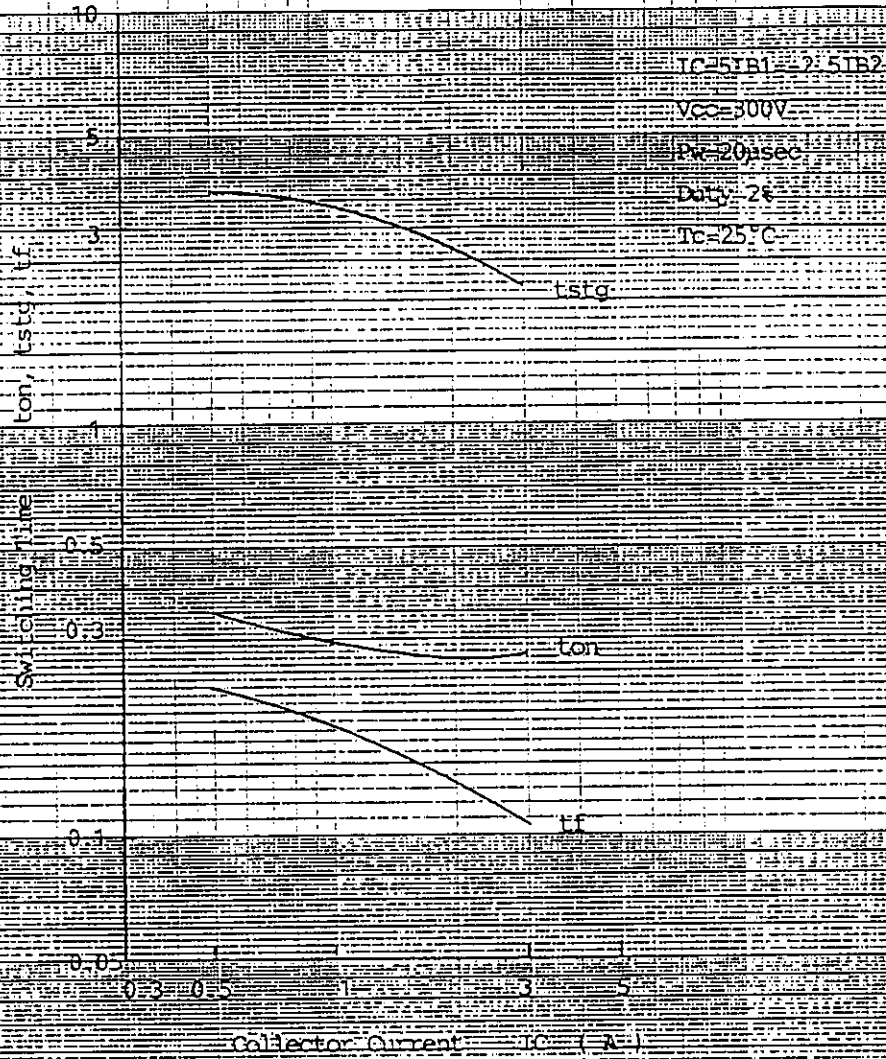




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Switching Time

( $\mu$ sec)



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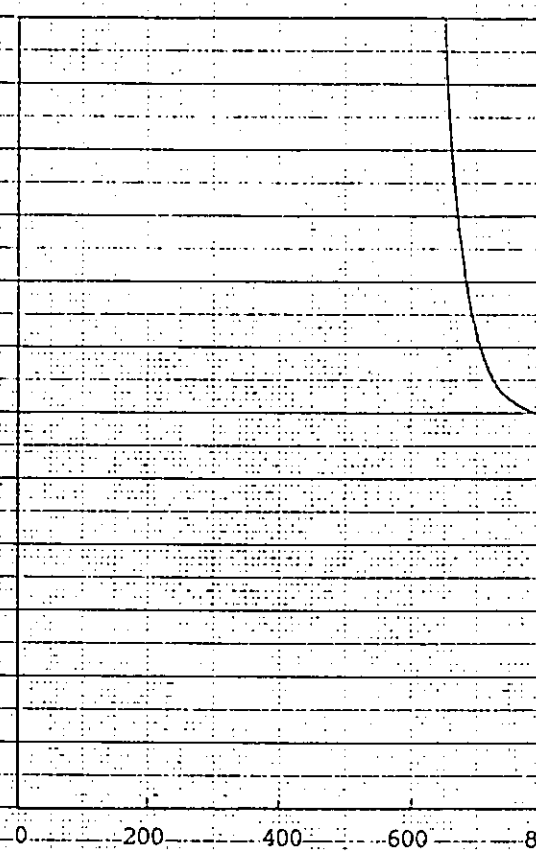
Reverse Biased Safe Operating Area

(-A-)

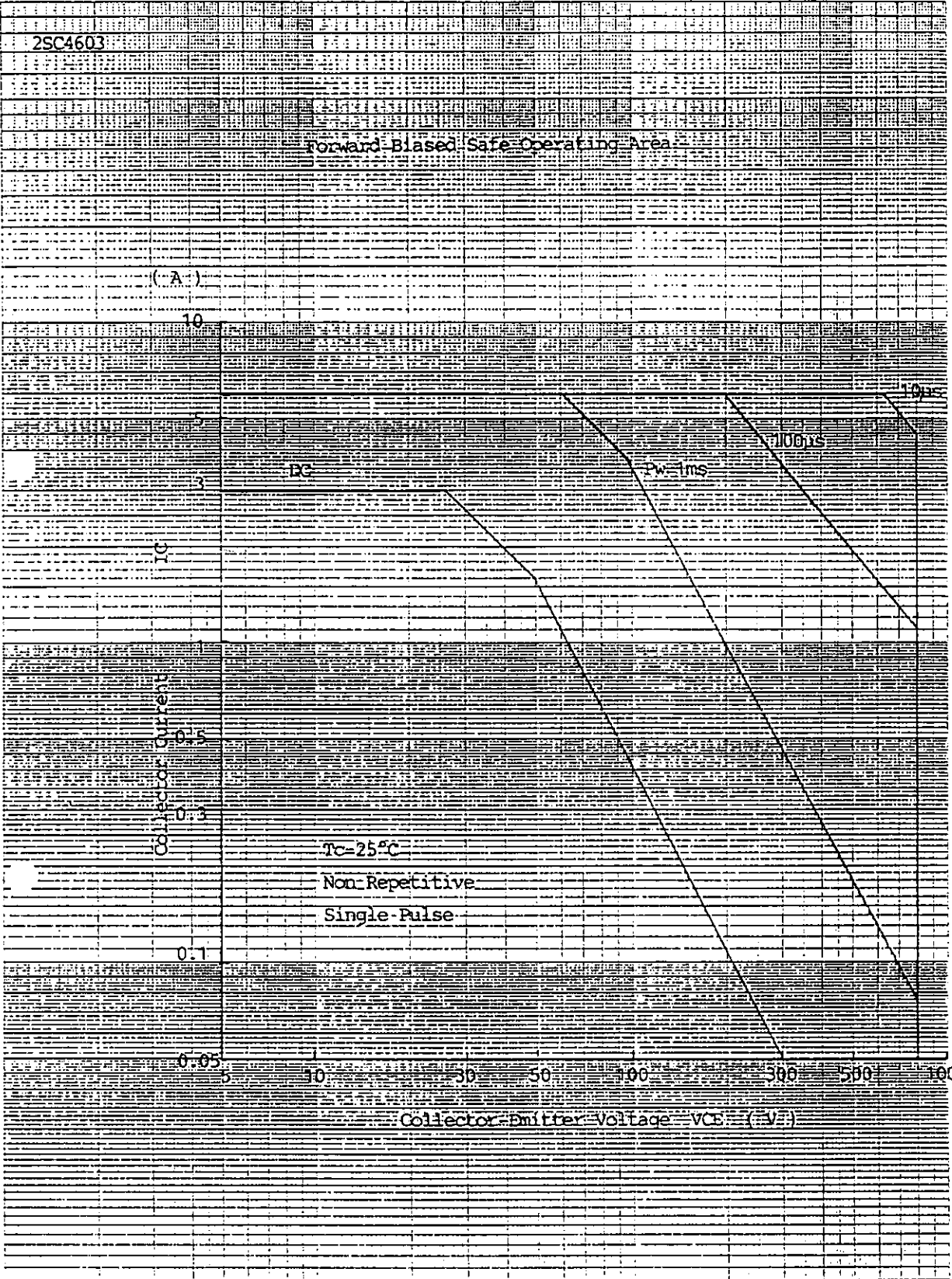
Collector Current  $I_C$  (A)

$T_C = 25^\circ C$

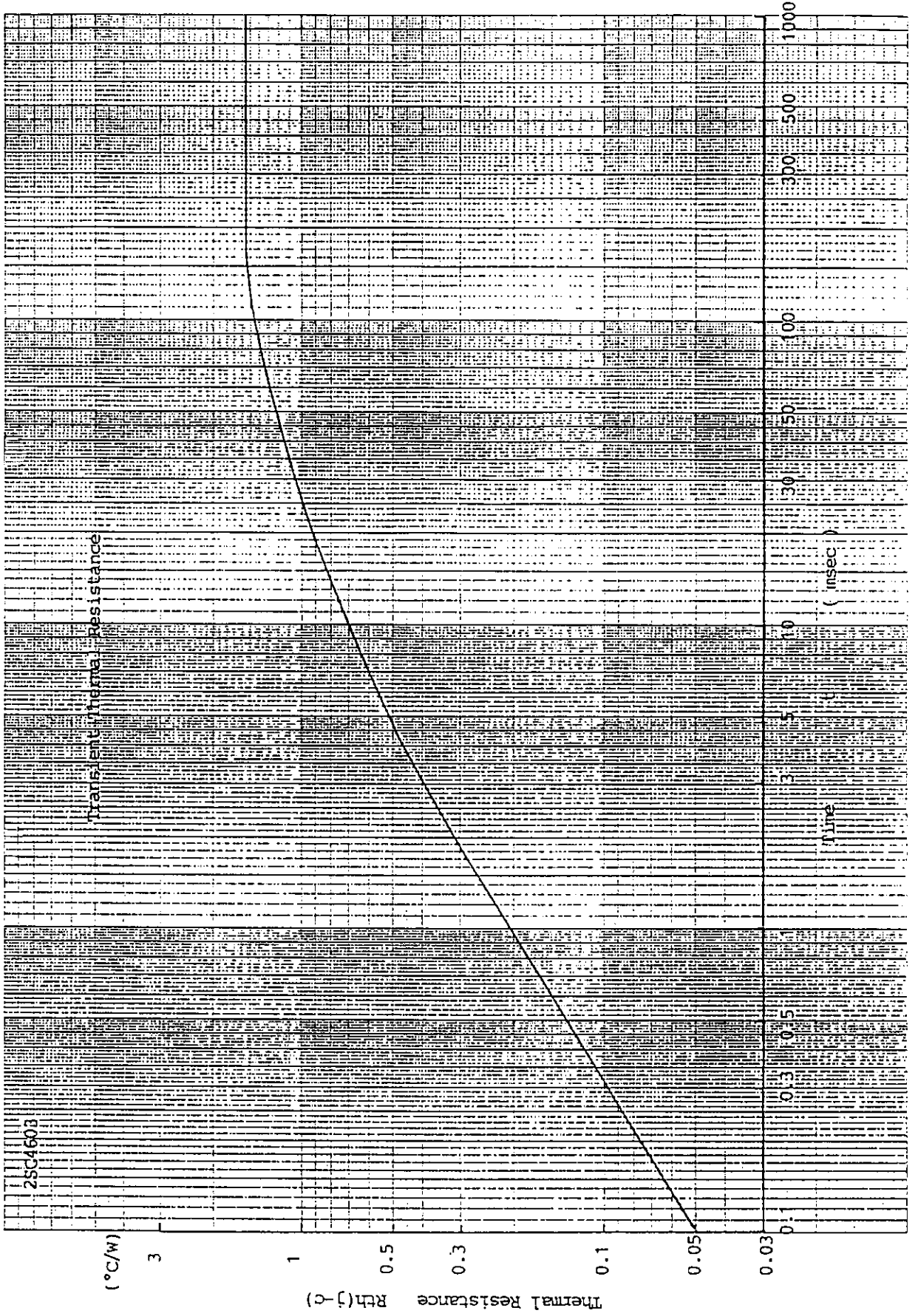
$I_B = -2A$



Collector-Emitter Voltage  $V_{CEX}$  (V)







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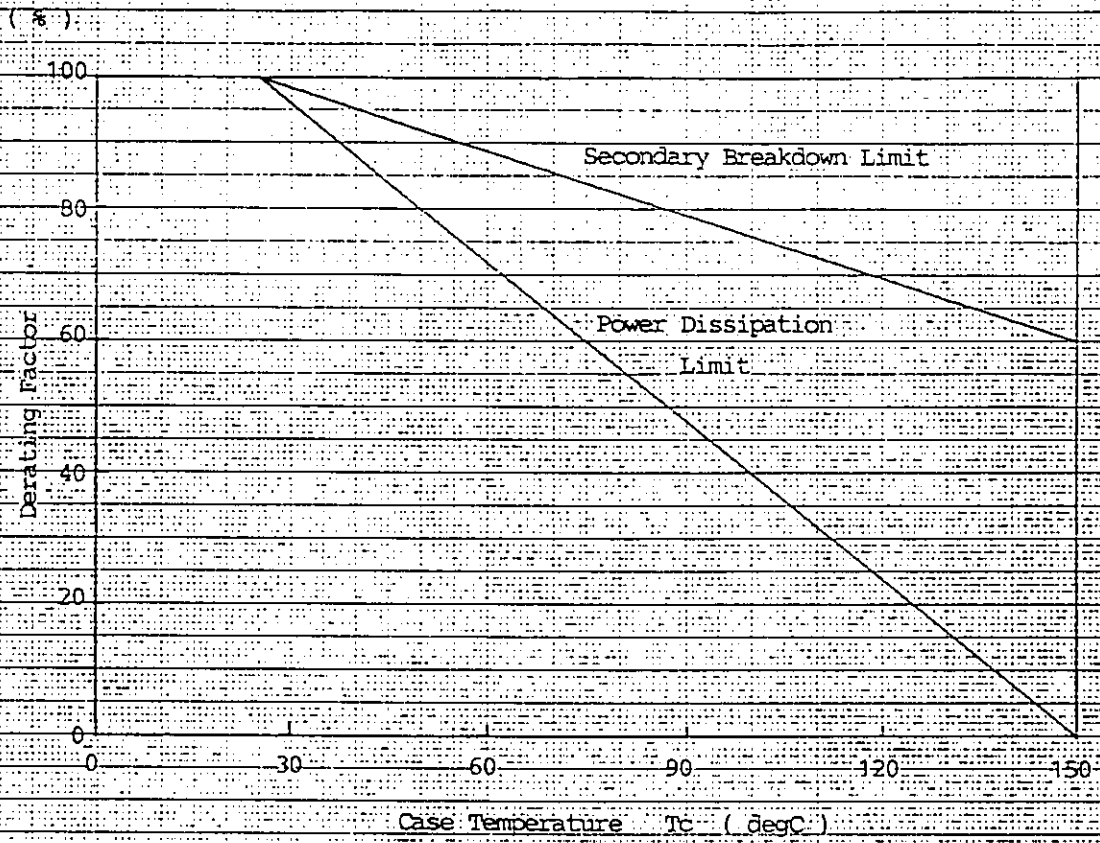
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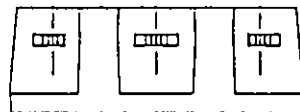
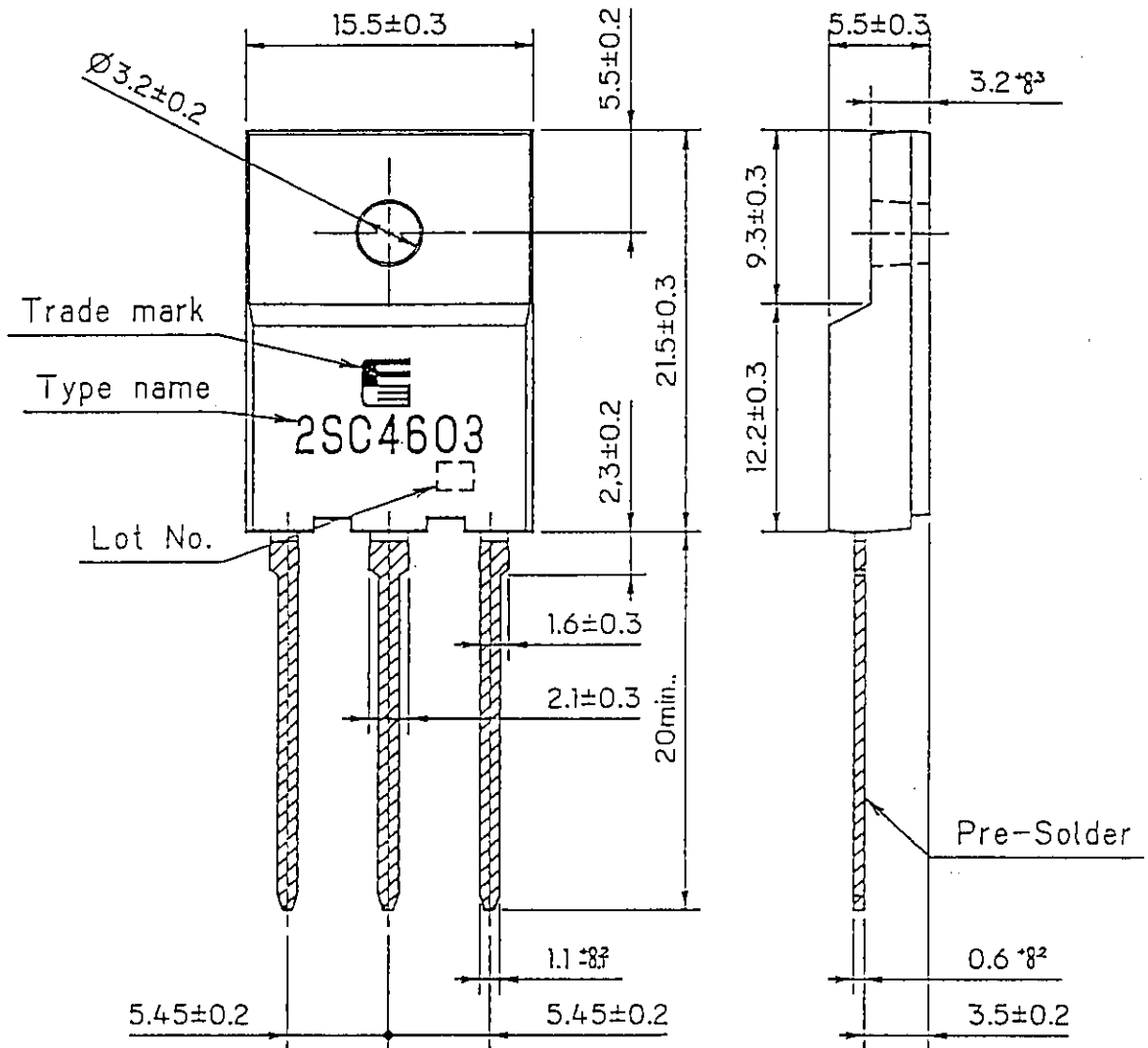
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Power Derating Factor



FUJI POWER TRANSISTOR

TYPE : 2SC4603R



① ② ③

CONNECTION

- ① BASE
- ② COLLECTOR
- ③ EMITTER

For more information, contact:

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