

Ratings and Characteristics of Fuji Power Transistor

2 S C 4 5 3 8 R

1. Outline Drawings TO-3PF
2. Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Maximum Rating | Unit |
|-----------------------------|-----------|----------------|------|
| Collector-Base Voltage | V_{CB0} | 900 | V |
| Collector-Emitter Voltage | V_{CE0} | 800 | |
| Emitter-Base Voltage | V_{EB0} | 10 | |
| Collector Current | I_C | 5 | A |
| Base Current | I_B | 3 | |
| Collector Power Dissipation | P_C | 80 | W |
| Operating Temperature | T_J | +150 | °C |
| Storage Temperature | T_{stg} | -55 ~ +150 | |

3. Electrical Characteristics (Tc=25°C)

| Item | Symbol | Conditions | Min | Max | Unit |
|--------------------------------------|---------------|---|-----|-----|---------|
| Collector-Base Voltage | V_{CB0} | $I_{CB0} = 1mA$ | 900 | | V |
| Collector-Emitter Voltage | V_{CE0} | $I_{CE0} = 10mA$ | 800 | | |
| Emitter-Base Breakdown Voltage | V_{EB0} | $I_{EB0} = 1mA$ | 10 | | |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = 900V$ | | 1.0 | mA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = 10V$ | | 1.0 | |
| DC Current Gain | h_{FE} | $I_C=2A$ $V_{CE}=5V$ | 10 | | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 2A$ | | 1.0 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_B = 0.4A$ | | 1.5 | |
| Switching Time | t_{on} | $I_C = 3A$ $I_{B1}=+0.6A$ $I_{B2}=-1.2A$ $P_W = 20\mu s, Duty \leq 2\%$ $R_L = 100\Omega$ | | 1.0 | μs |
| | t_{stg} | | | 4.0 | |
| | t_f | | | 0.8 | |

4. Thermal Characteristics

| Item | Symbol | Conditions | Min | Max | Unit |
|--------------------|---------------|------------------|-----|-----|------|
| Thermal Resistance | $R_{th(j-c)}$ | Junction to Case | | 1.5 | °C/W |

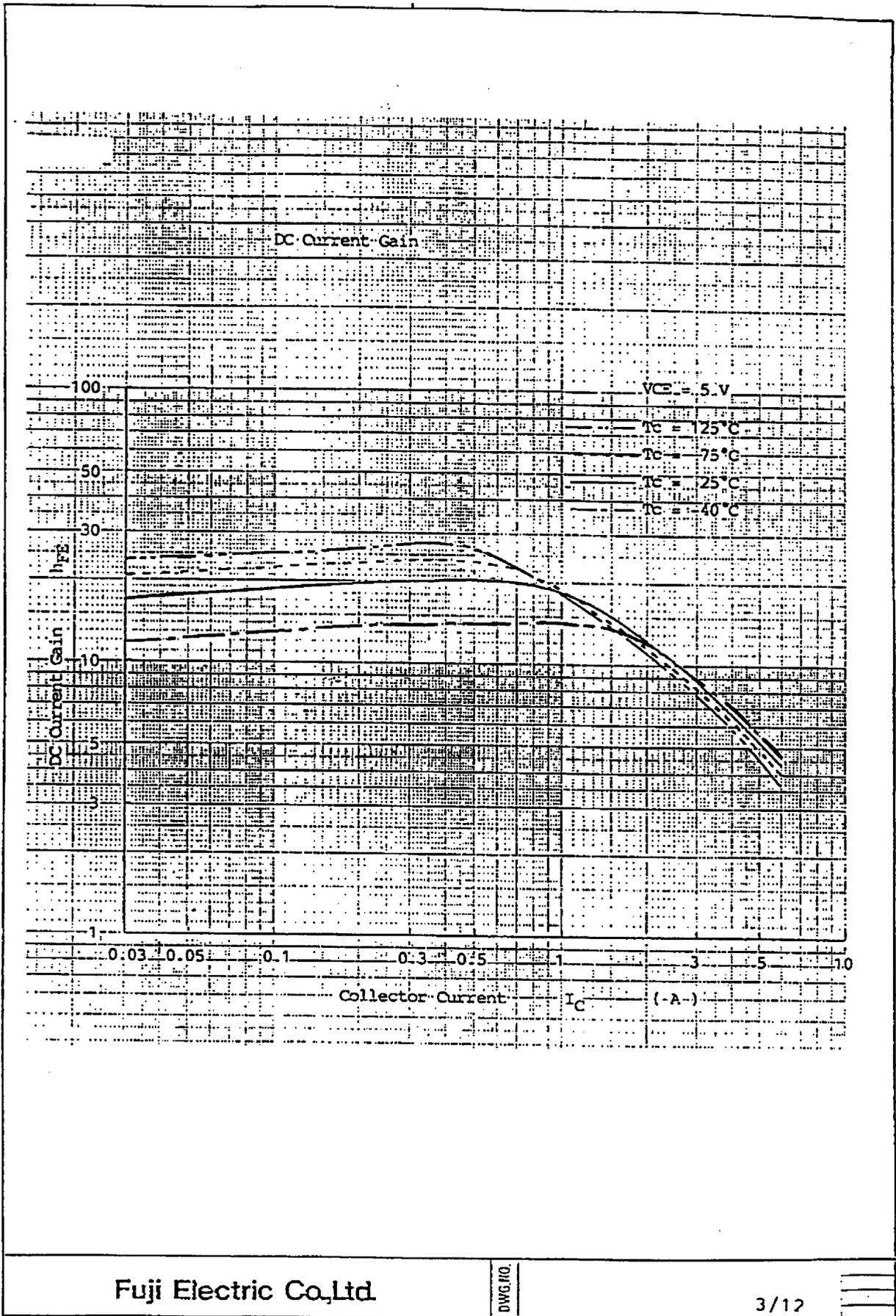
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DWG.NO.

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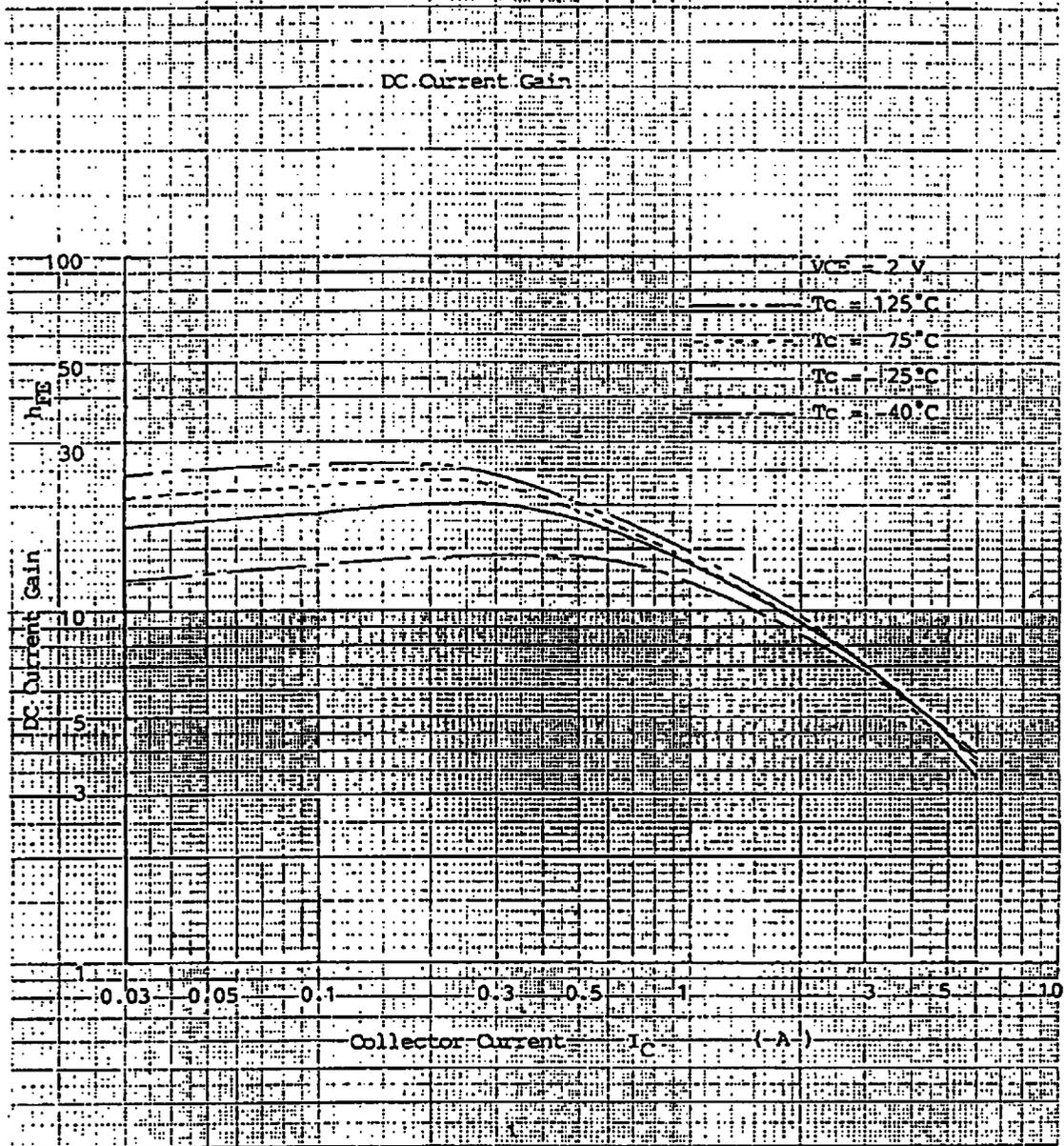
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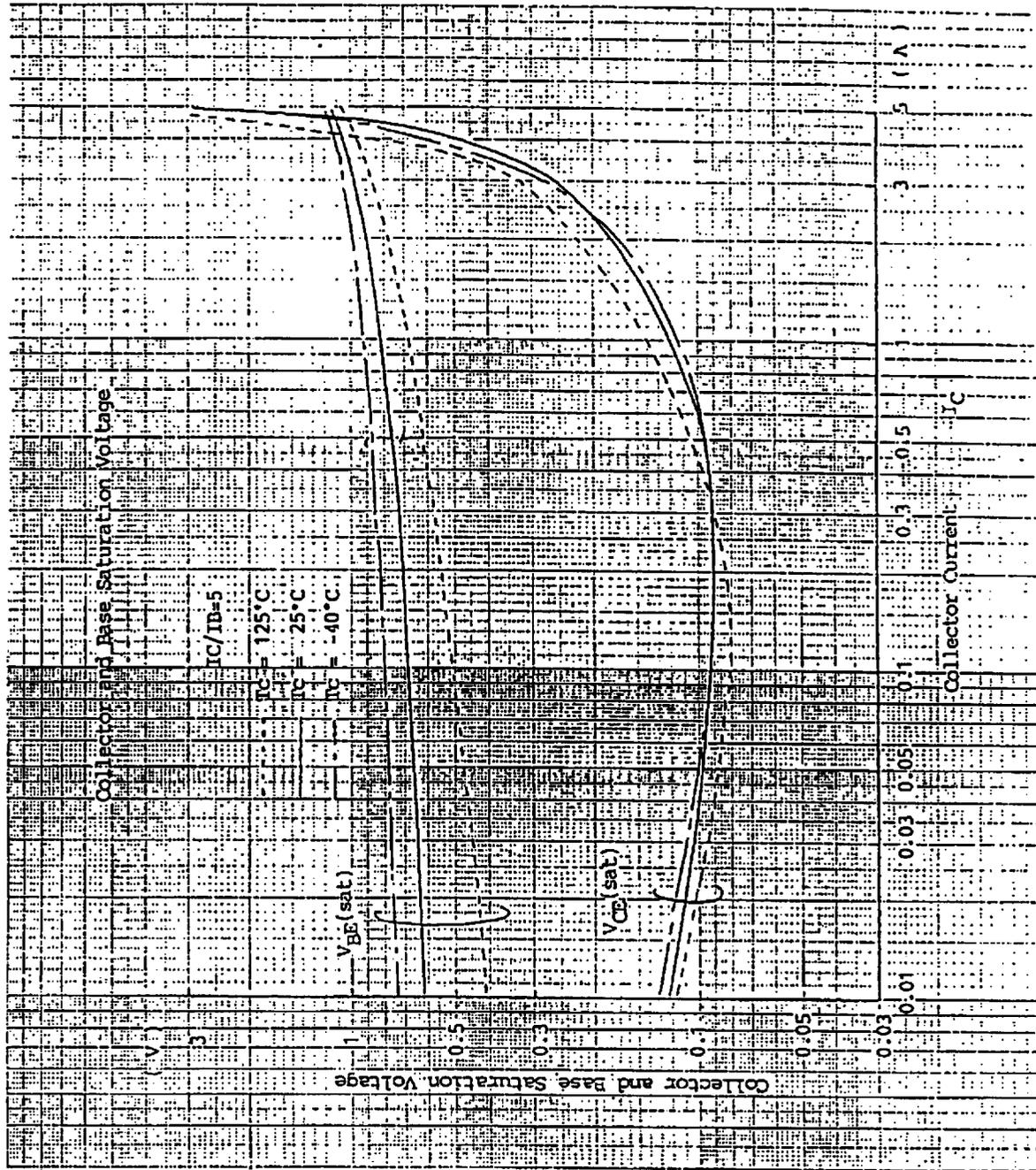
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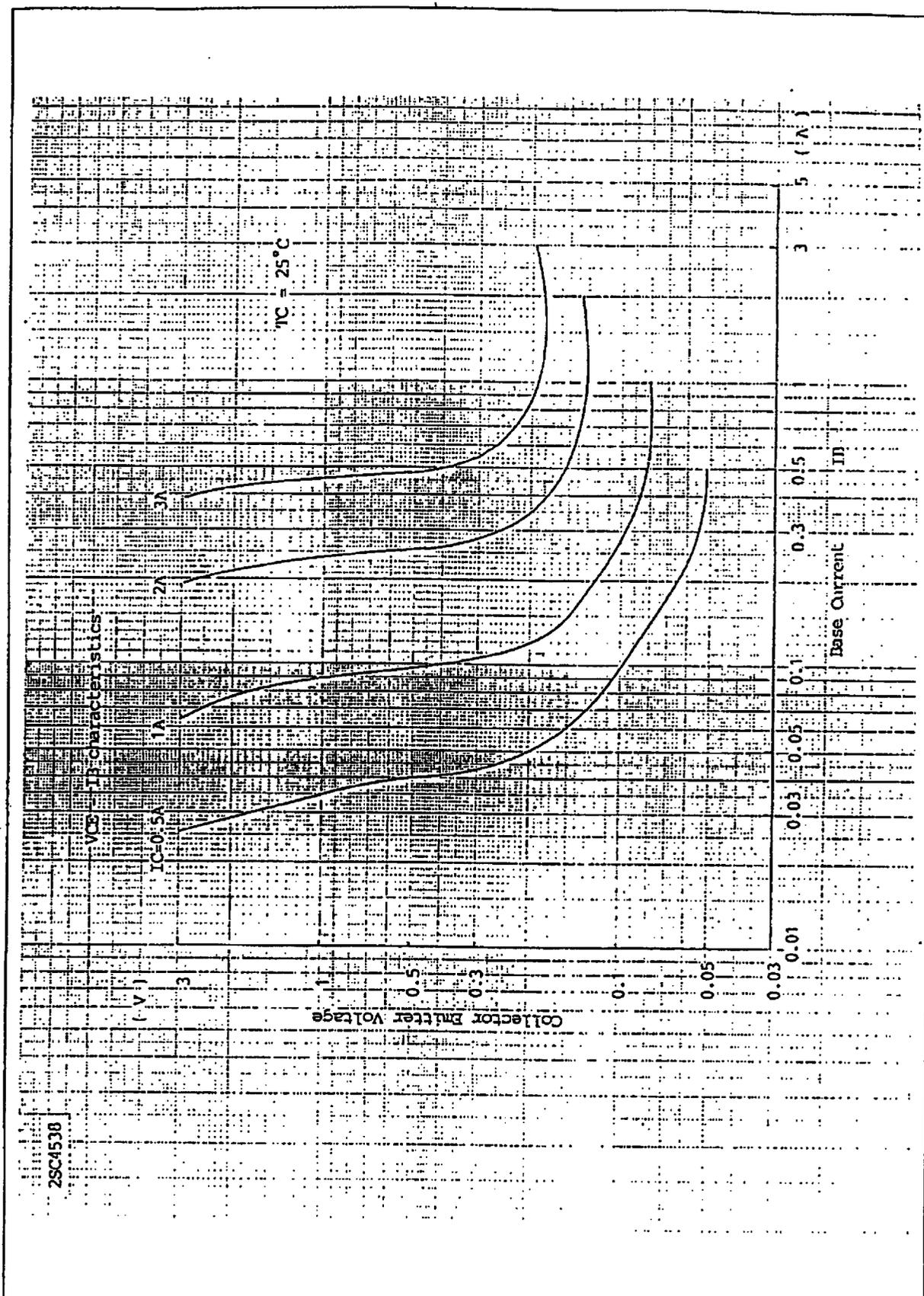
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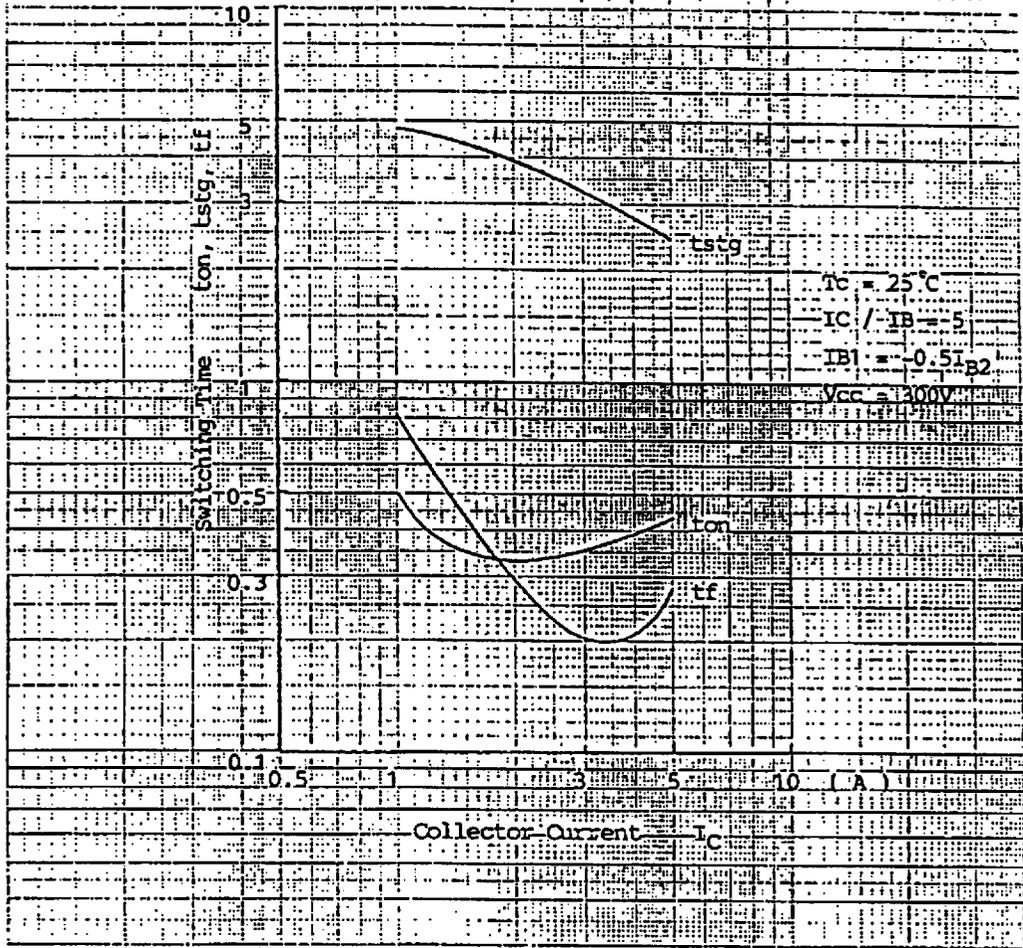
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Switching Time

(μ sec)



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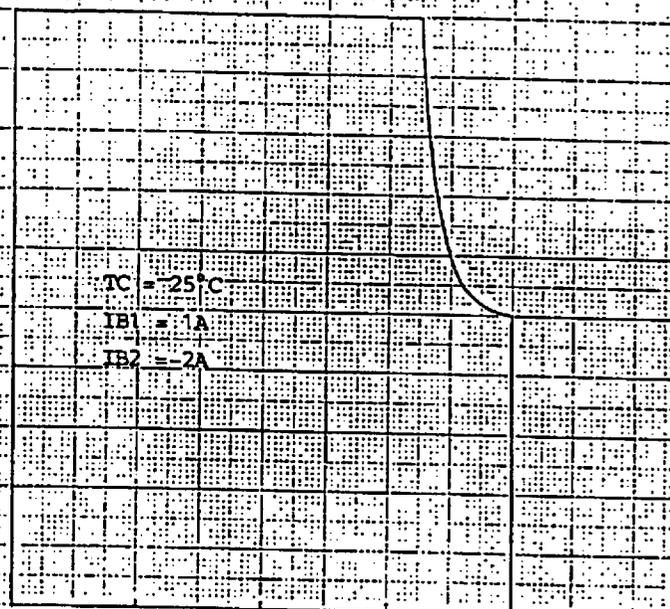
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Reverse Biased Safe Operating Area

(A)

Collector Current I_C

10
8
6
4
2
0



$T_C = -25^\circ C$
 $I_{B1} = 1A$
 $I_{B2} = -2A$

Collector-Emitter Voltage V_{CEX} (V)

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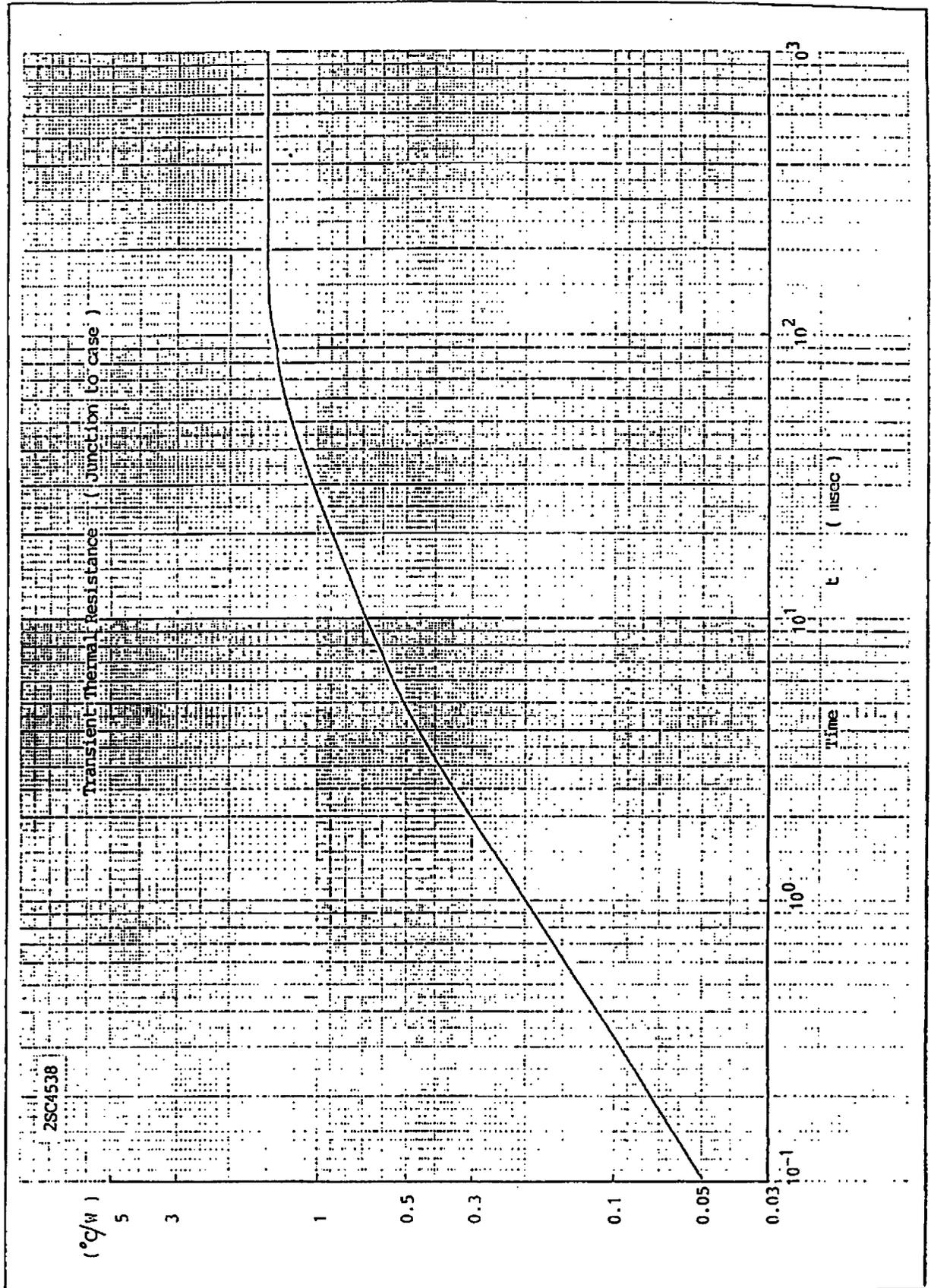
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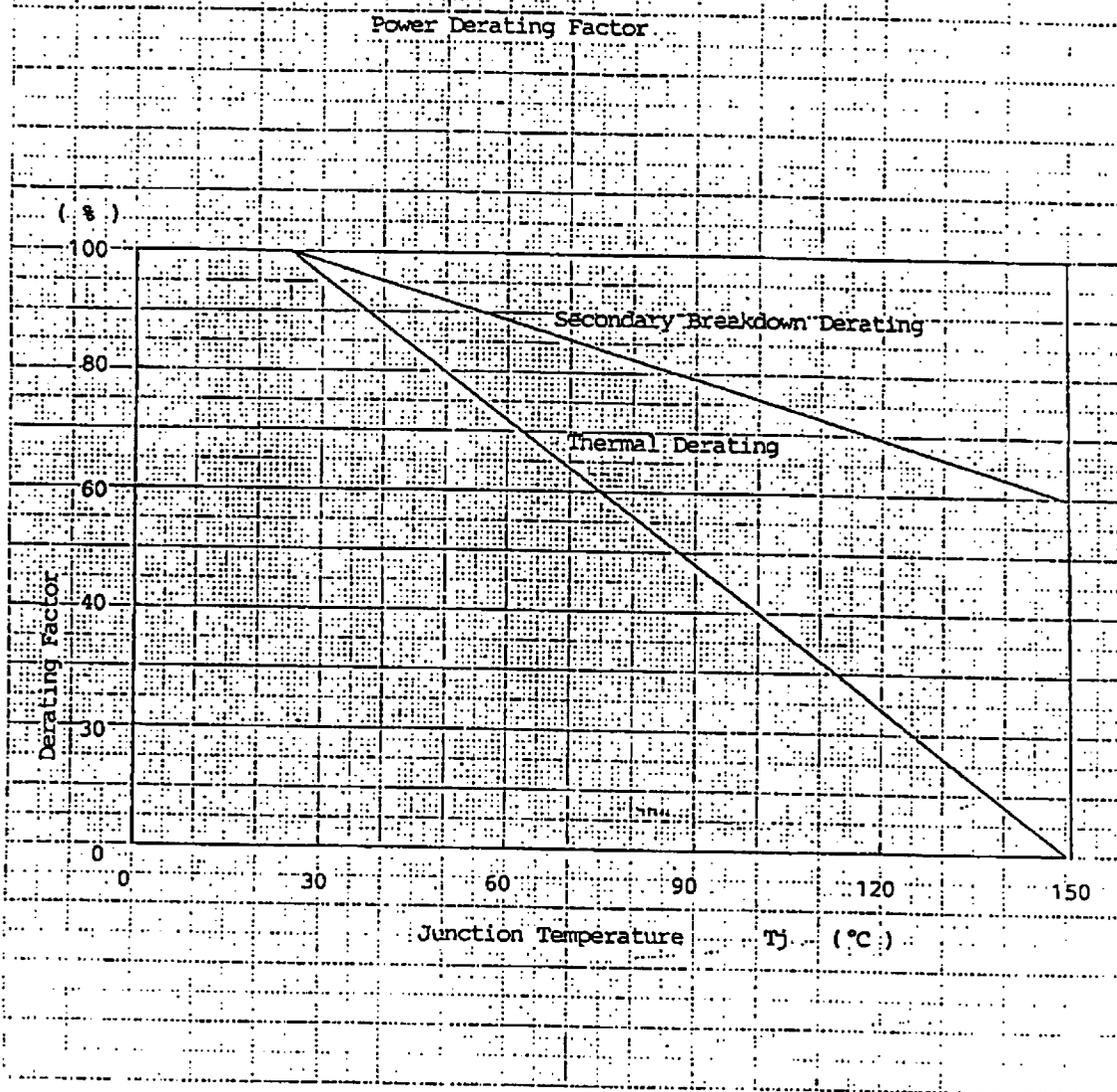
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