

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	Fuji Electric Co.,Ltd.	
DRAWN				DWG.NO.	
CHECKED					

Y 0257-R-004a

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% IB1 = +0.4A. IB2 = -0.8A. PW = 20 μs. RL = 150Ω		1.0	μs
	tstg			4.0	
	tf			0.8	

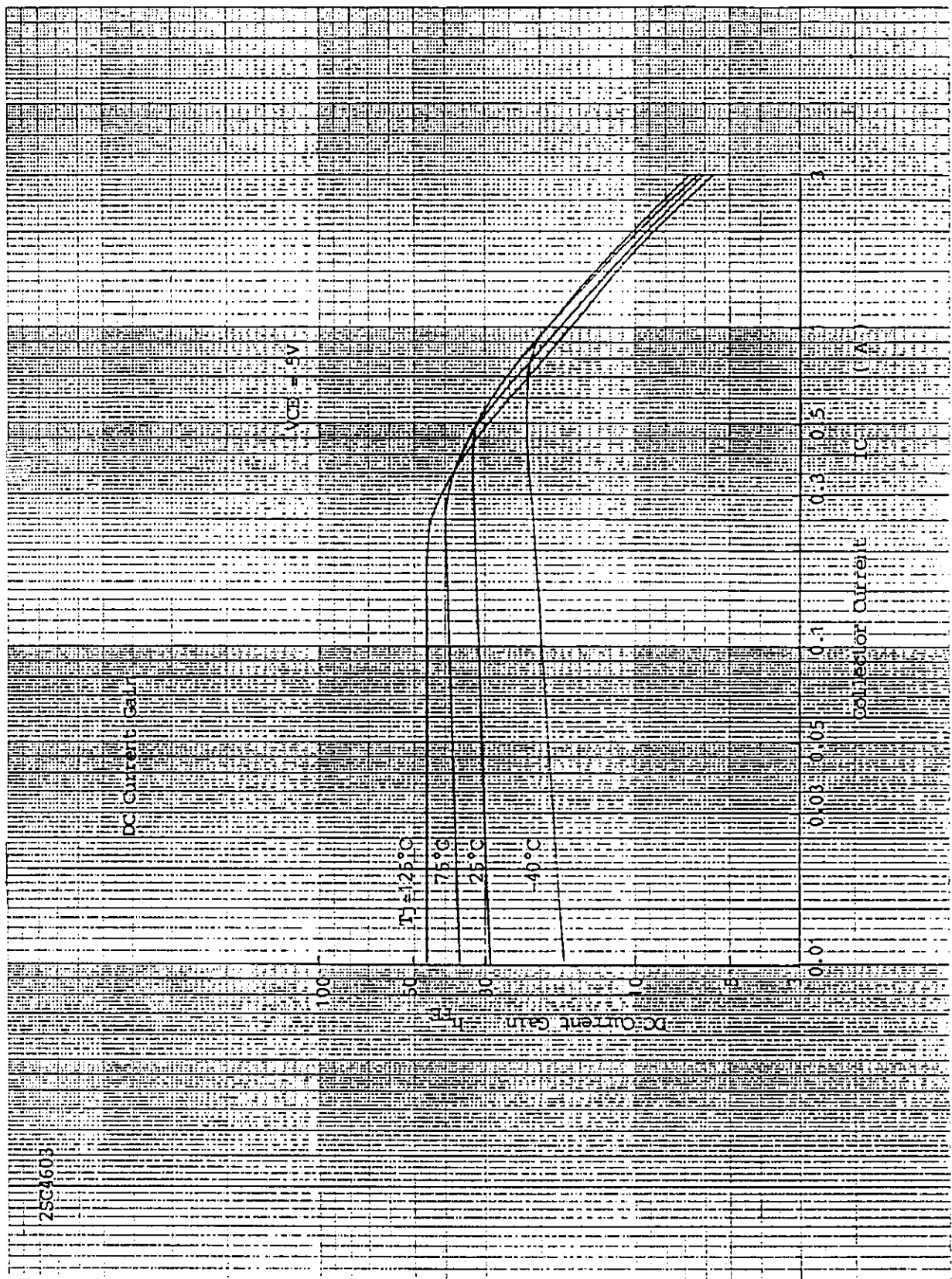
4. Thermal Characteristics

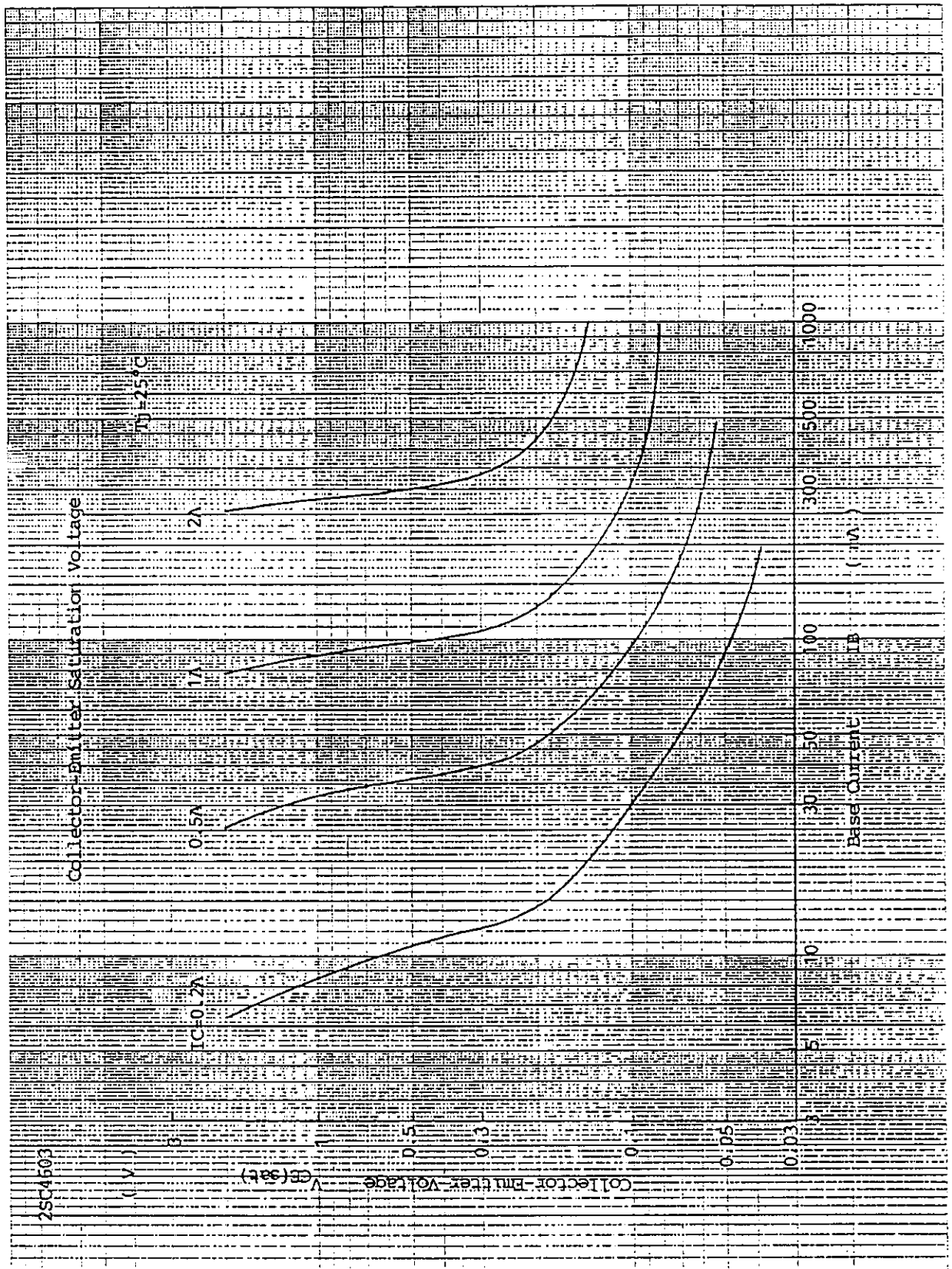
Item	Symbol	Conditions	Min	Max	Unit
Thermal Resistance	Rth(j-c)	Junction to Case		1.55	°C/W

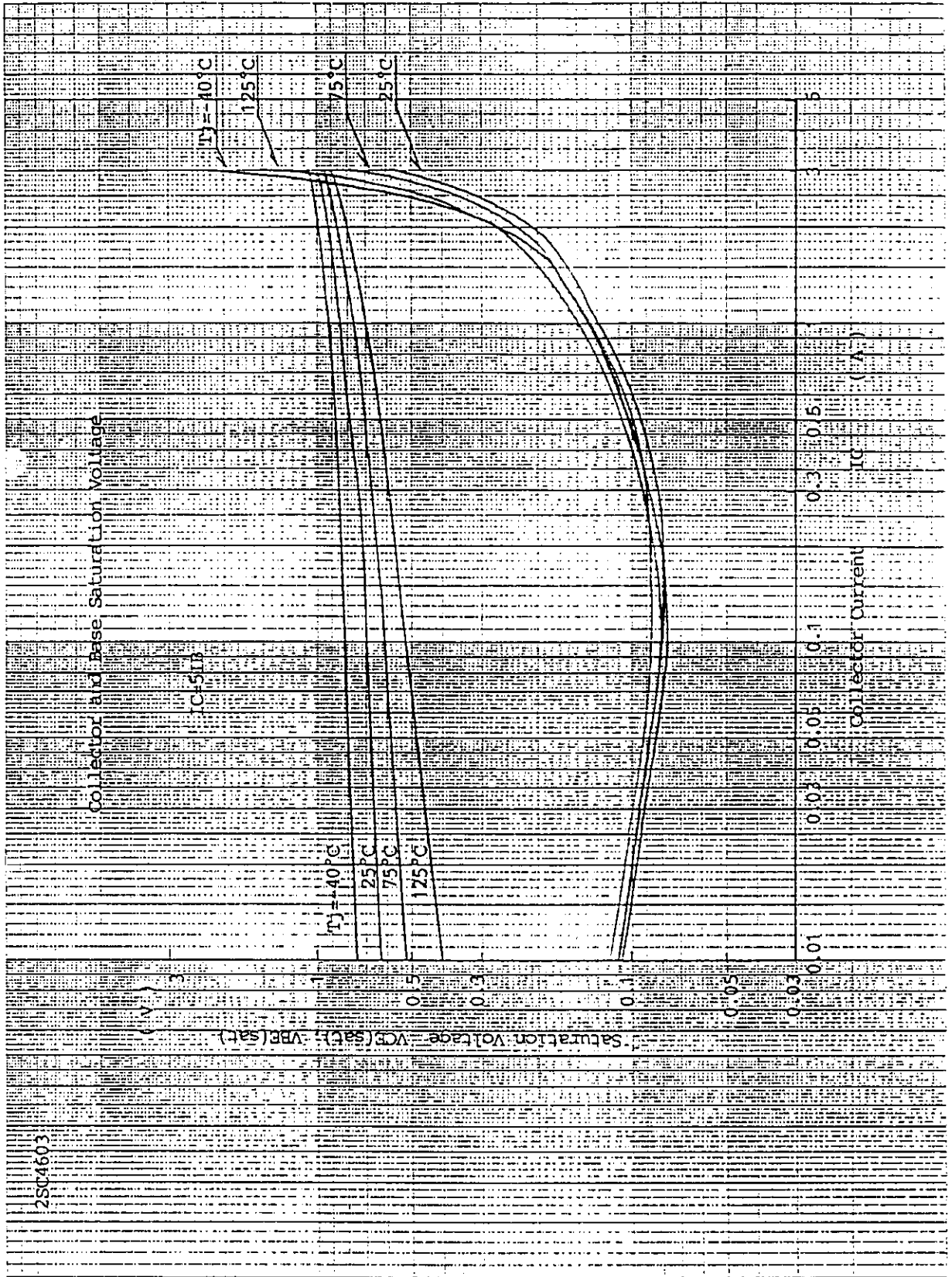
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Switching Time

(μ sec)

10

5

3

1

0.5

0.3

0.1

0.05

Collector Current I_C (A)

0.3

0.5

1

3

5

$T_C=5TB1-2; 5TB2$

$V_{CC}=300V$

$P_{rr}=20\mu sec$

Duty = 2%

$T_C=25^\circ C$

t_{stg}

t_{on}

t_f

t_{on}, t_{stg}, t_f

Switching Time

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Reverse Biased Safe Operating Area

(-A-)

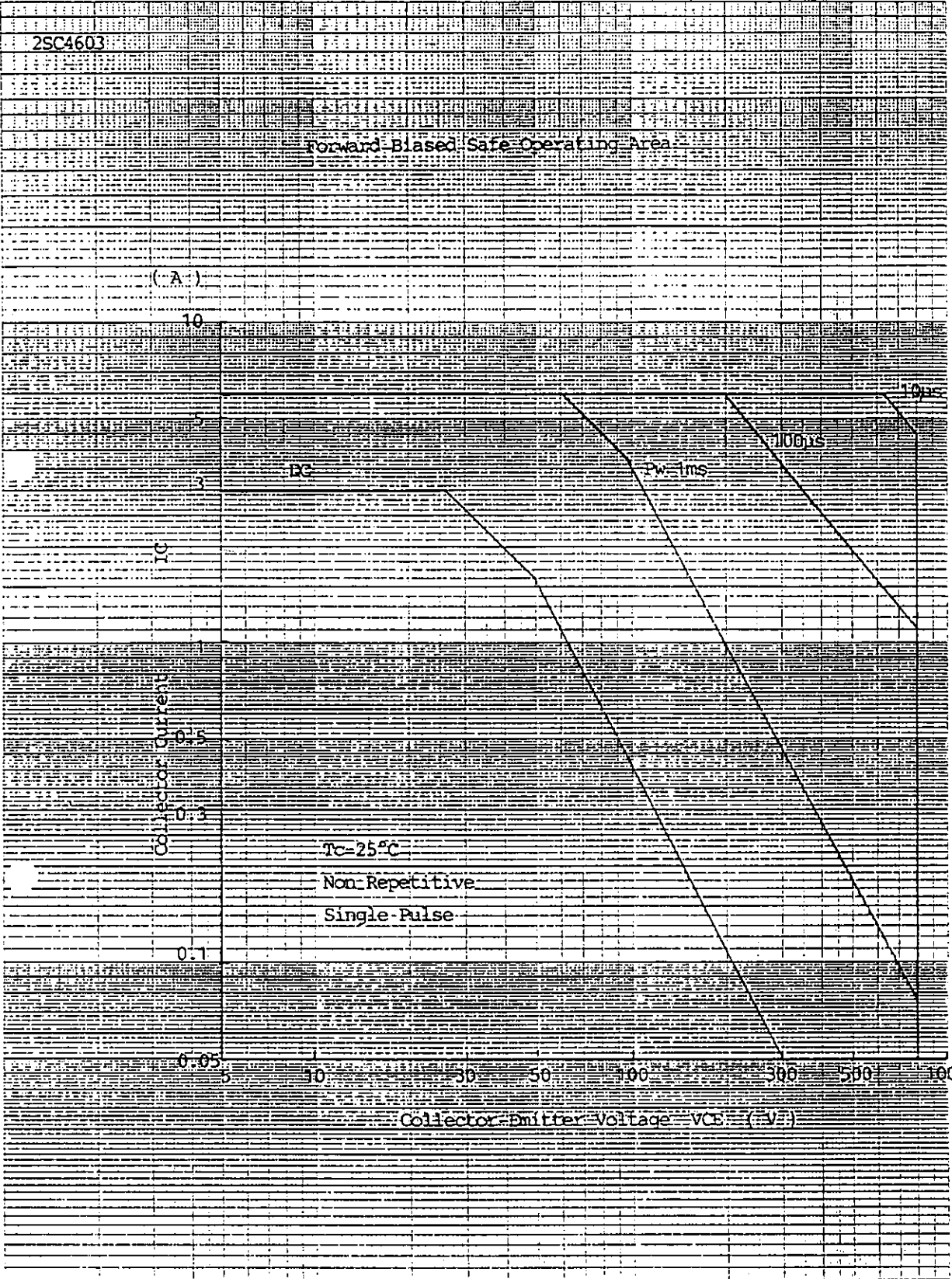
Collector Current I_C (A)

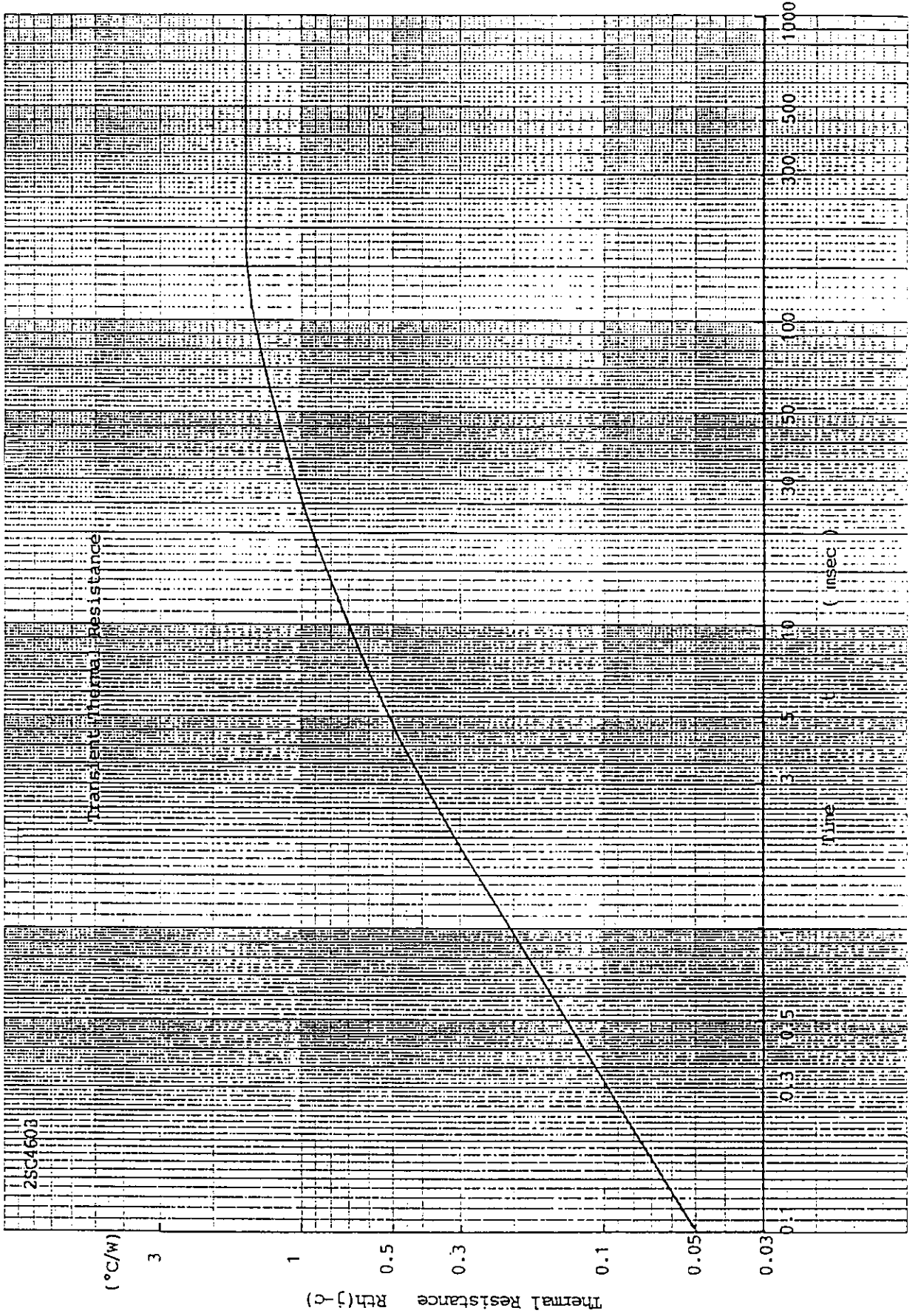
$T_C = 25^\circ\text{C}$

$I_B = -2\text{A}$

0 1 2 3 4 5 6

Collector-Emitter Voltage V_{CEX} (V)





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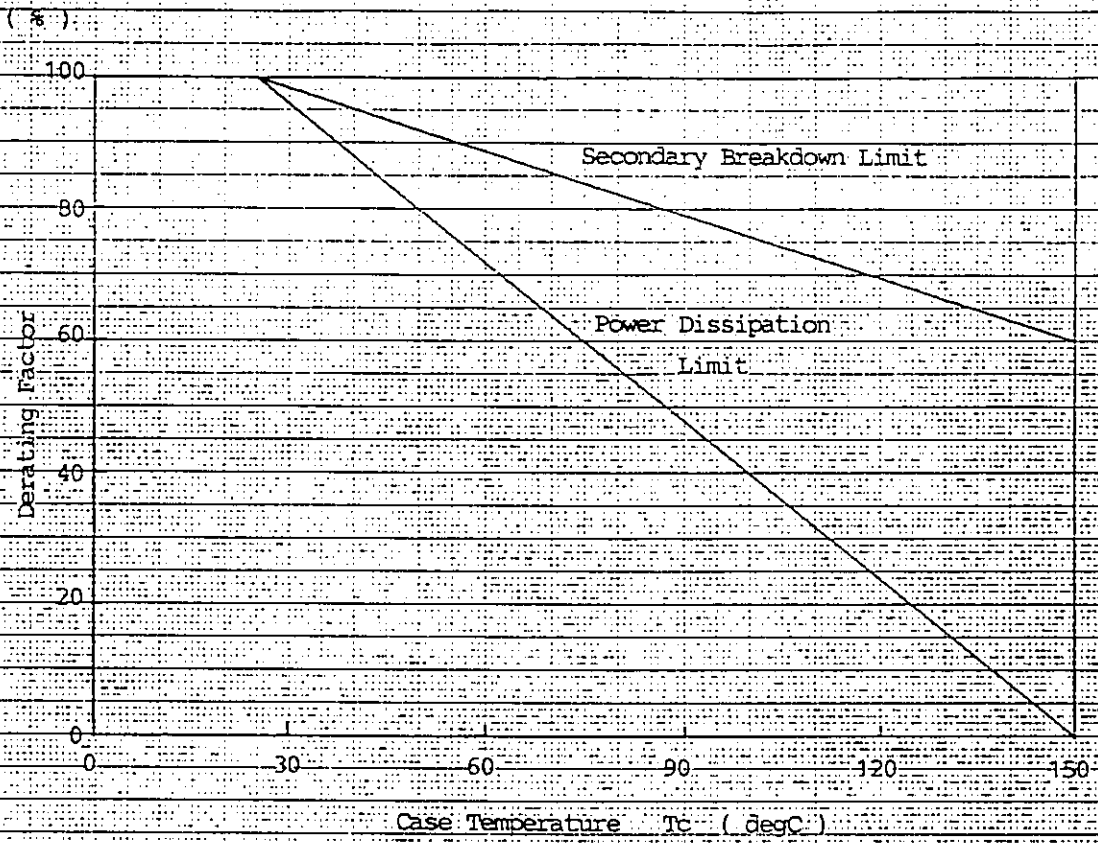
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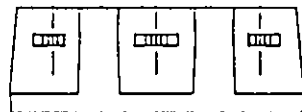
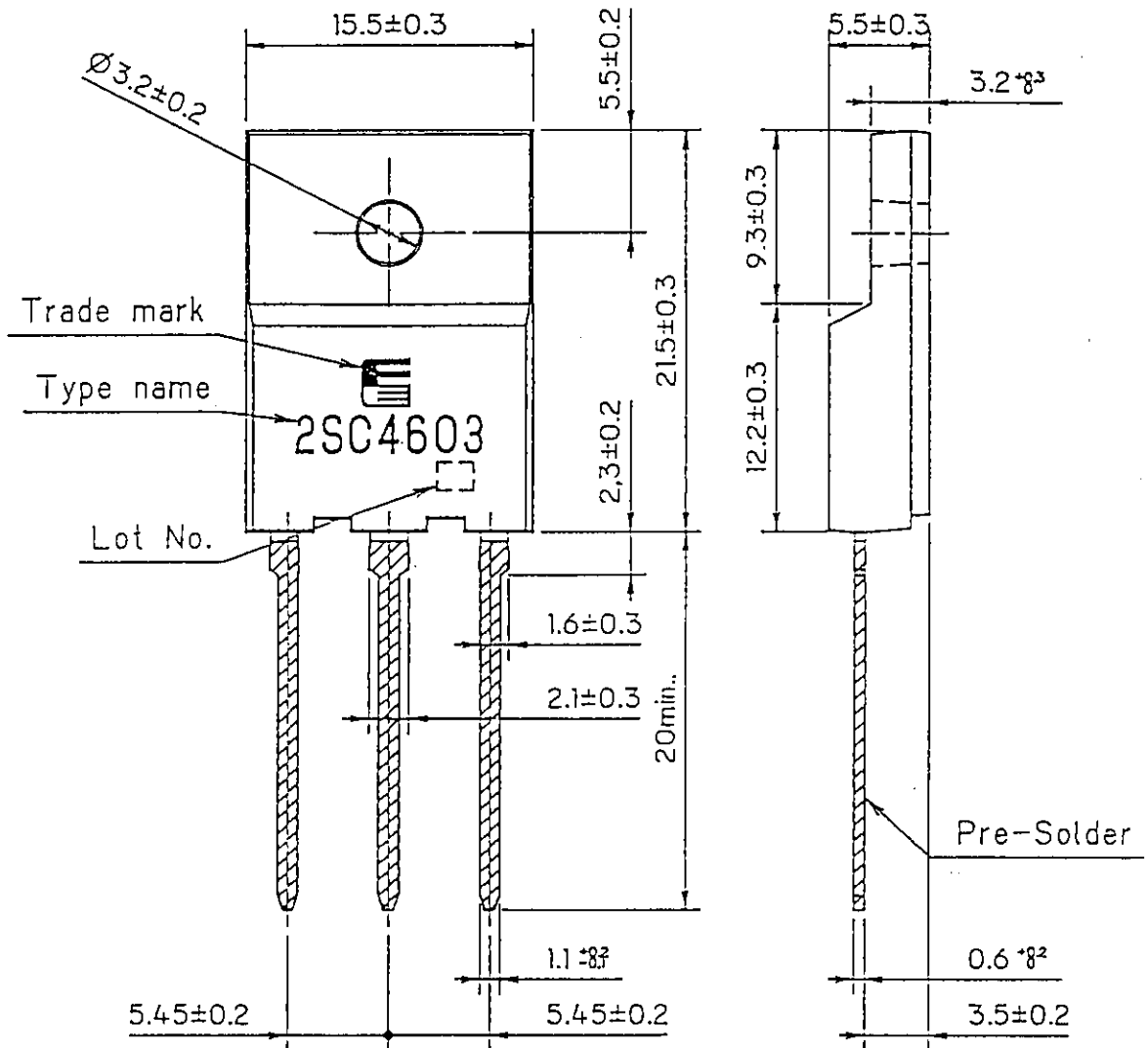
2SC4603

Power Derating Factor



FUJI POWER TRANSISTOR

TYPE : 2SC4603R



① ② ③

CONNECTION

- ① BASE
- ② COLLECTOR
- ③ EMITTER

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