

SPECIFICATION

DEVICE NAME : BIPOLAR TRANSISTOR
 TYPE NAME : 2 S C 4 5 3 8 R
 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.	1/12
CHECKED					

Y 0257-R-004a

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}	9 0 0	V
Collector-Emitter Voltage	V _{CE0}	8 0 0	
Emitter-Base Voltage	V _{EB0}	1 0	
Collector Current	I _c	5	A
Base Current	I _b	3	
Collector Power Dissipation	P _c	8 0	W
Operating Temperature	T _j	+ 1 5 0	°C
Storage Temperature	T _{stg}	- 5 5 ~ + 1 5 0	

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 _{CB0}	V _{CB} = 900V		1.0	mA
Emitter Cutoff Current	I _{EB0}	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	ton	I _c = 3 A I _{B1} = +0.6A I _{B2} = -1.2A P _w = 20us, Duty ≤ 2% RL = 100Ω		1.0	μs
	tstg			4.0	
	tf			0.8	

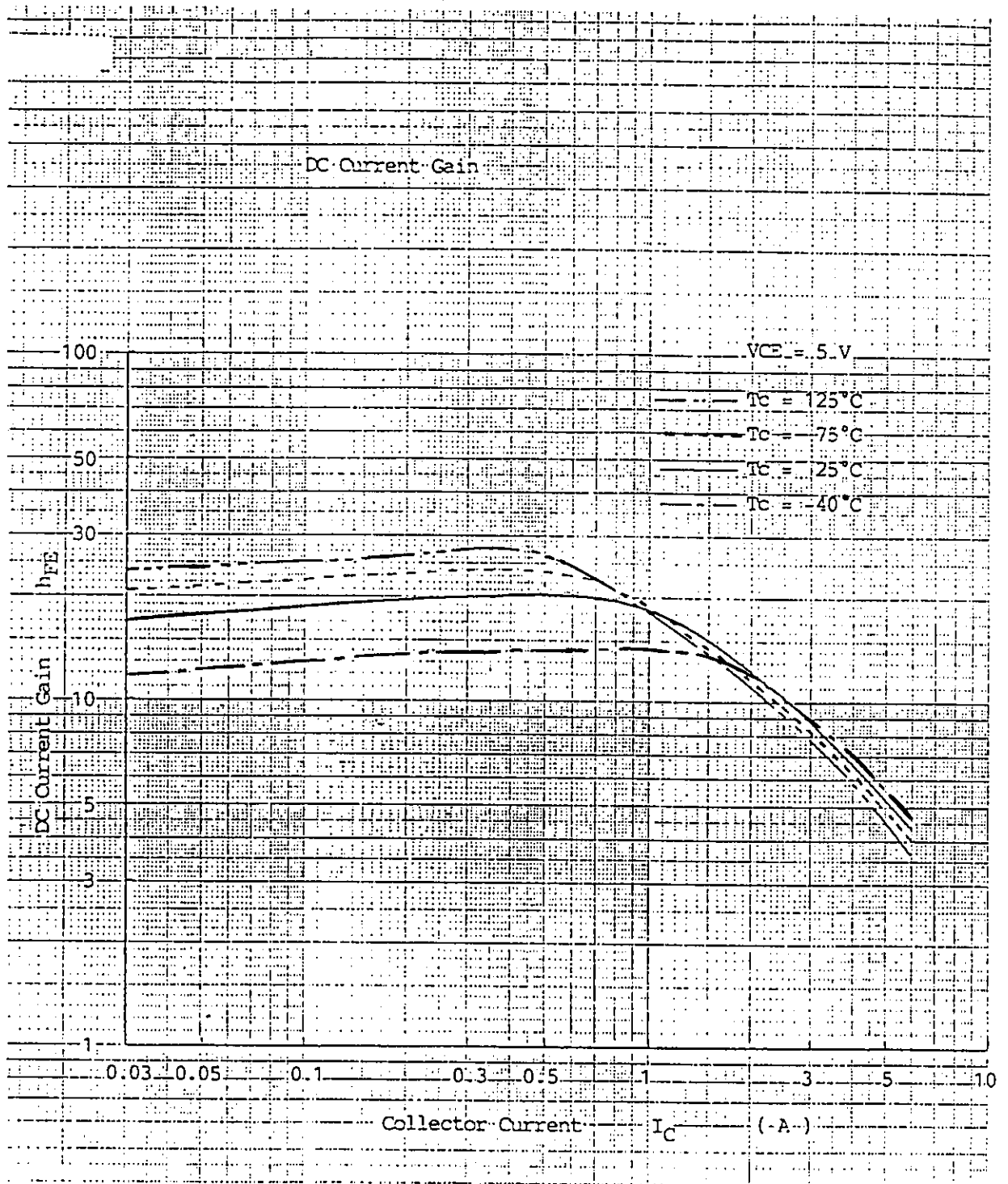
4. Thermal Characteristics

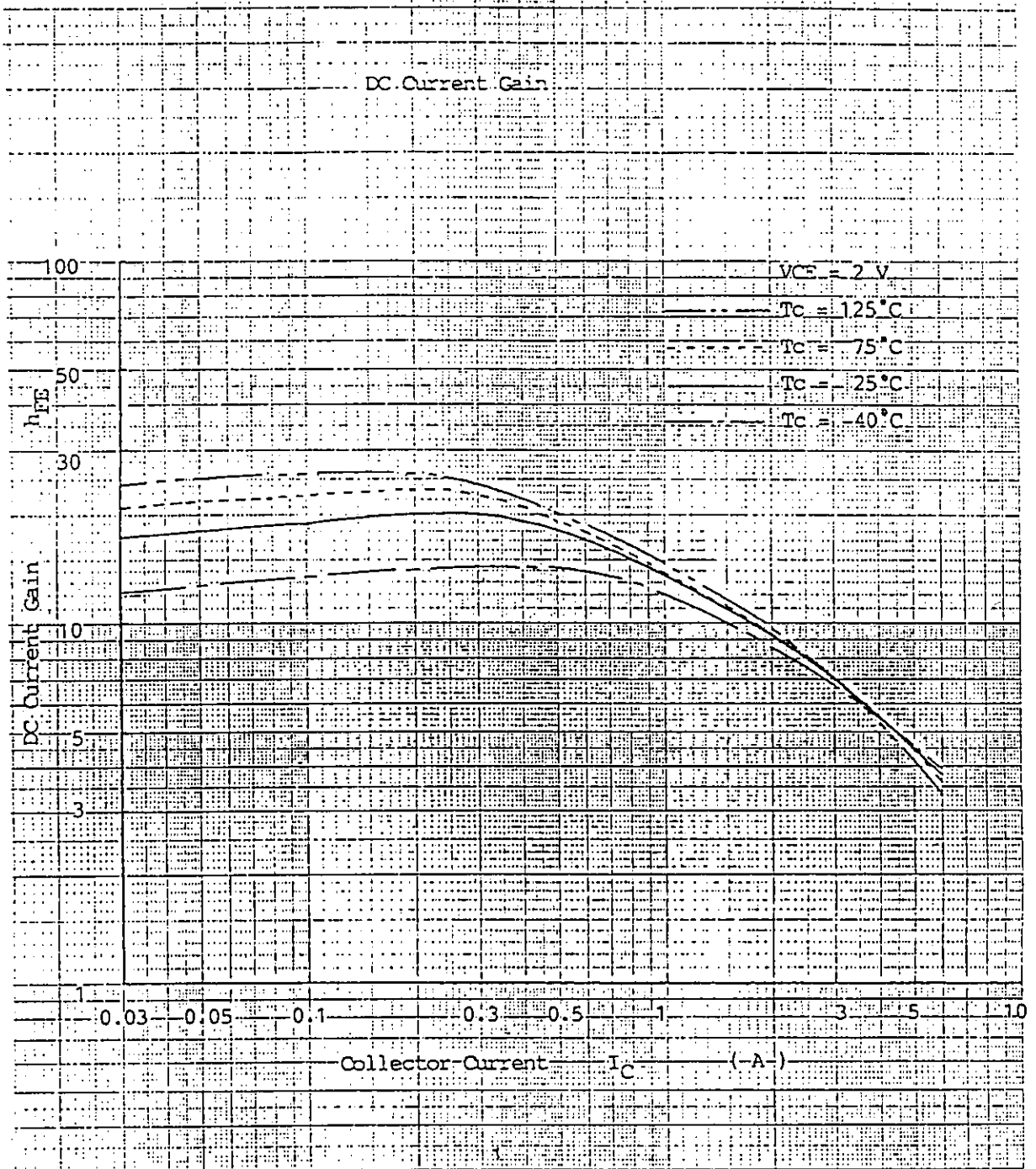
Item	Symbol	Conditions	Min	Max	Unit
Thermal Resistance	Rth(j-c)	Junction to Case		1.5	°C/W

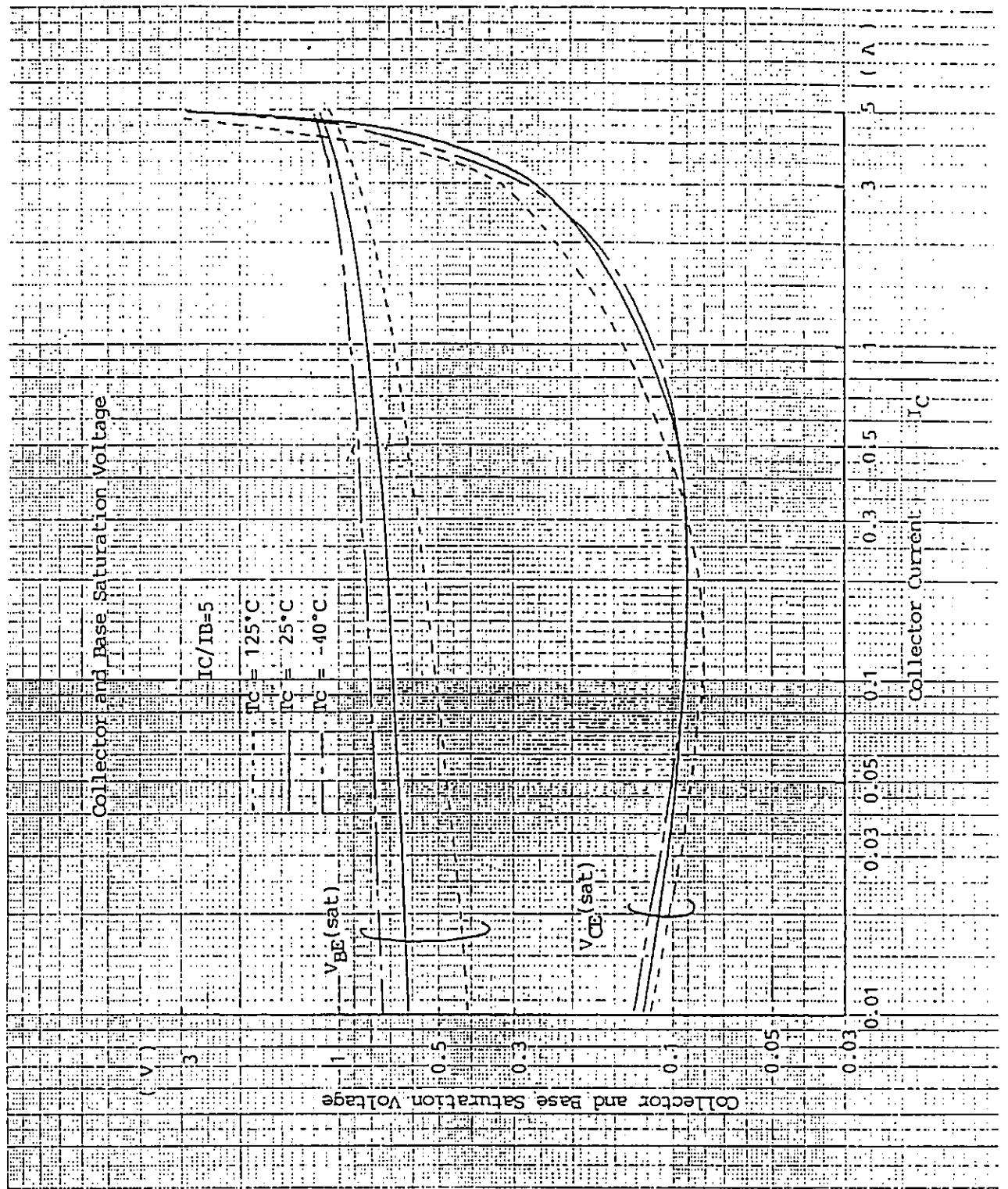
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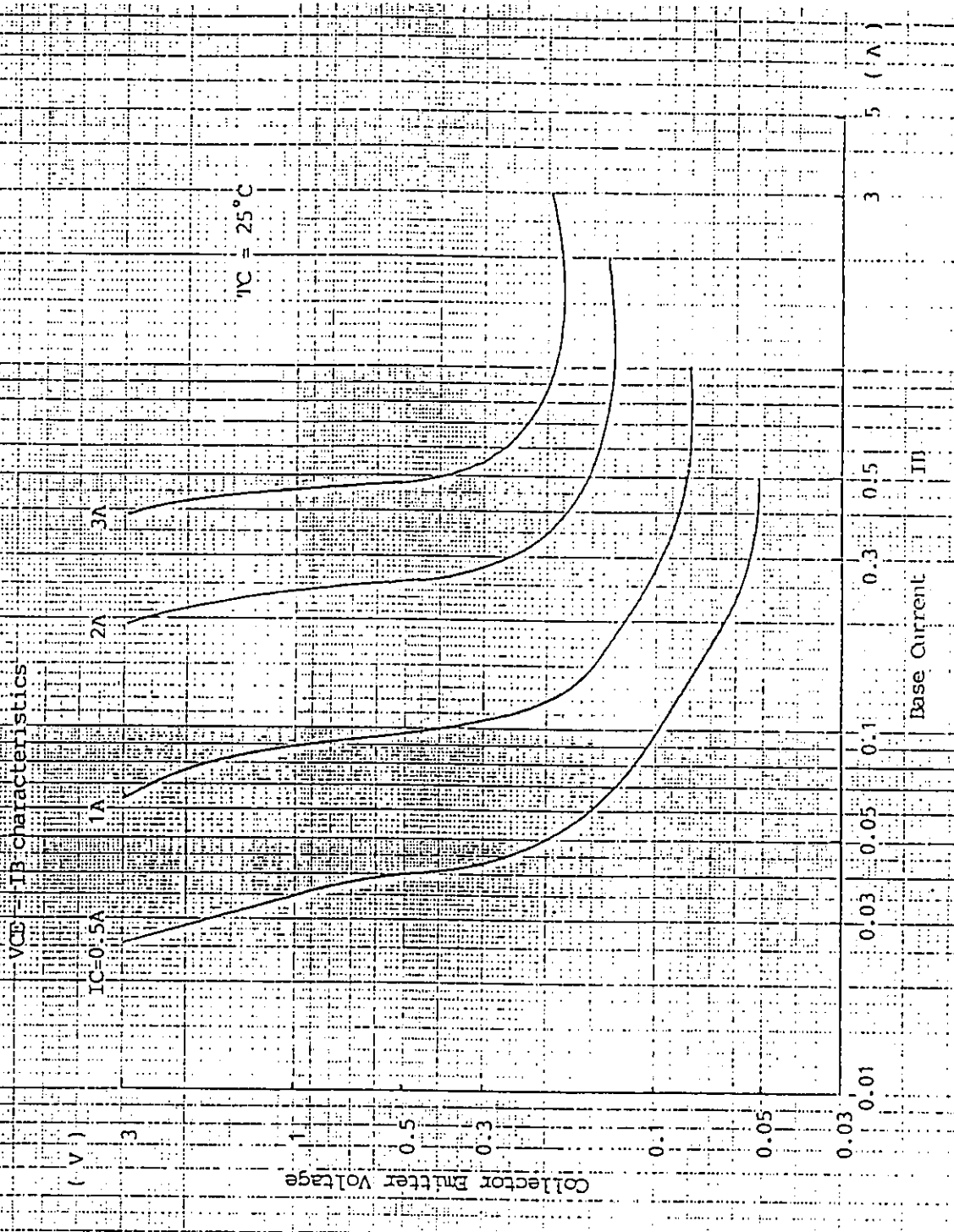
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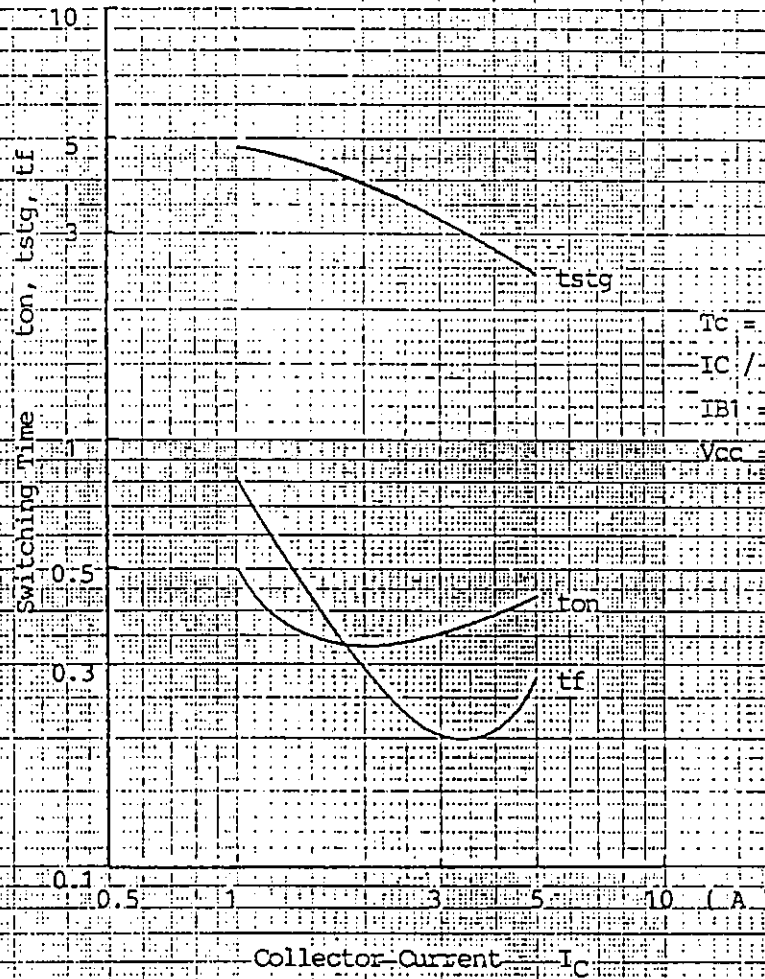
25C4538



2SC4538

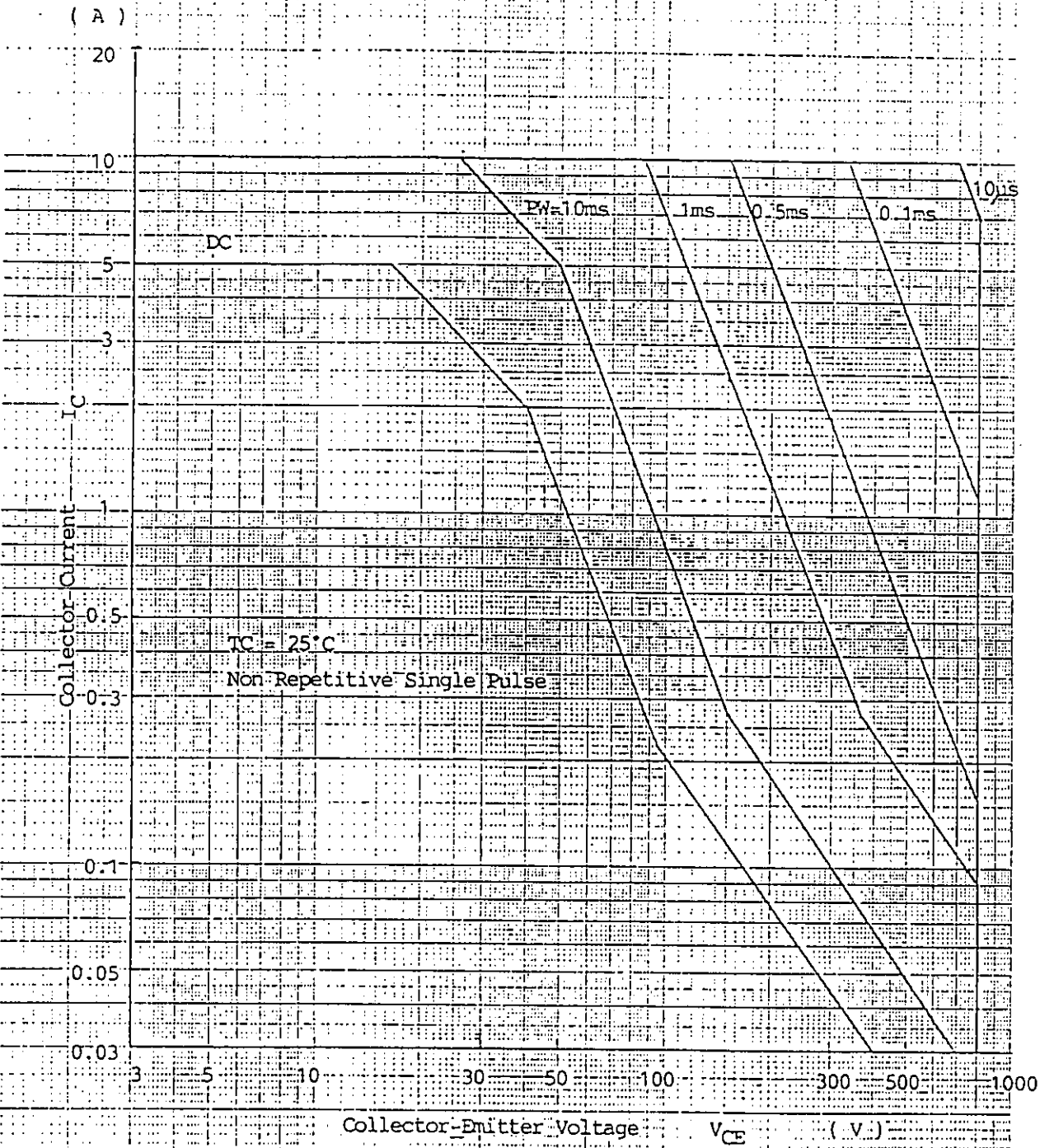
Switching Time

(μ sec)



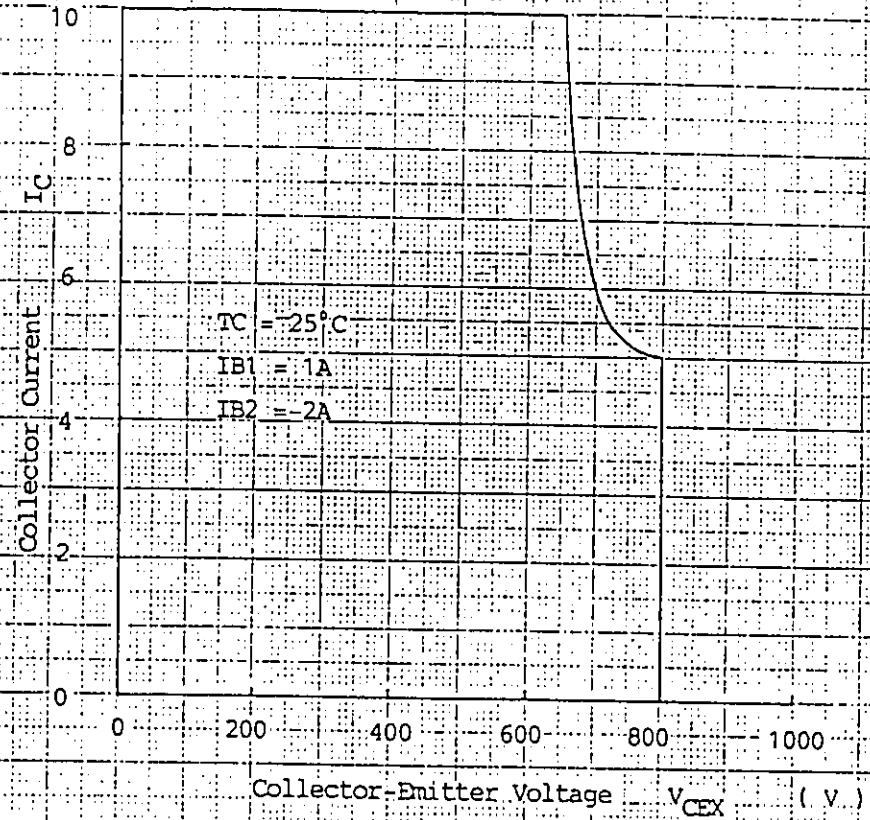
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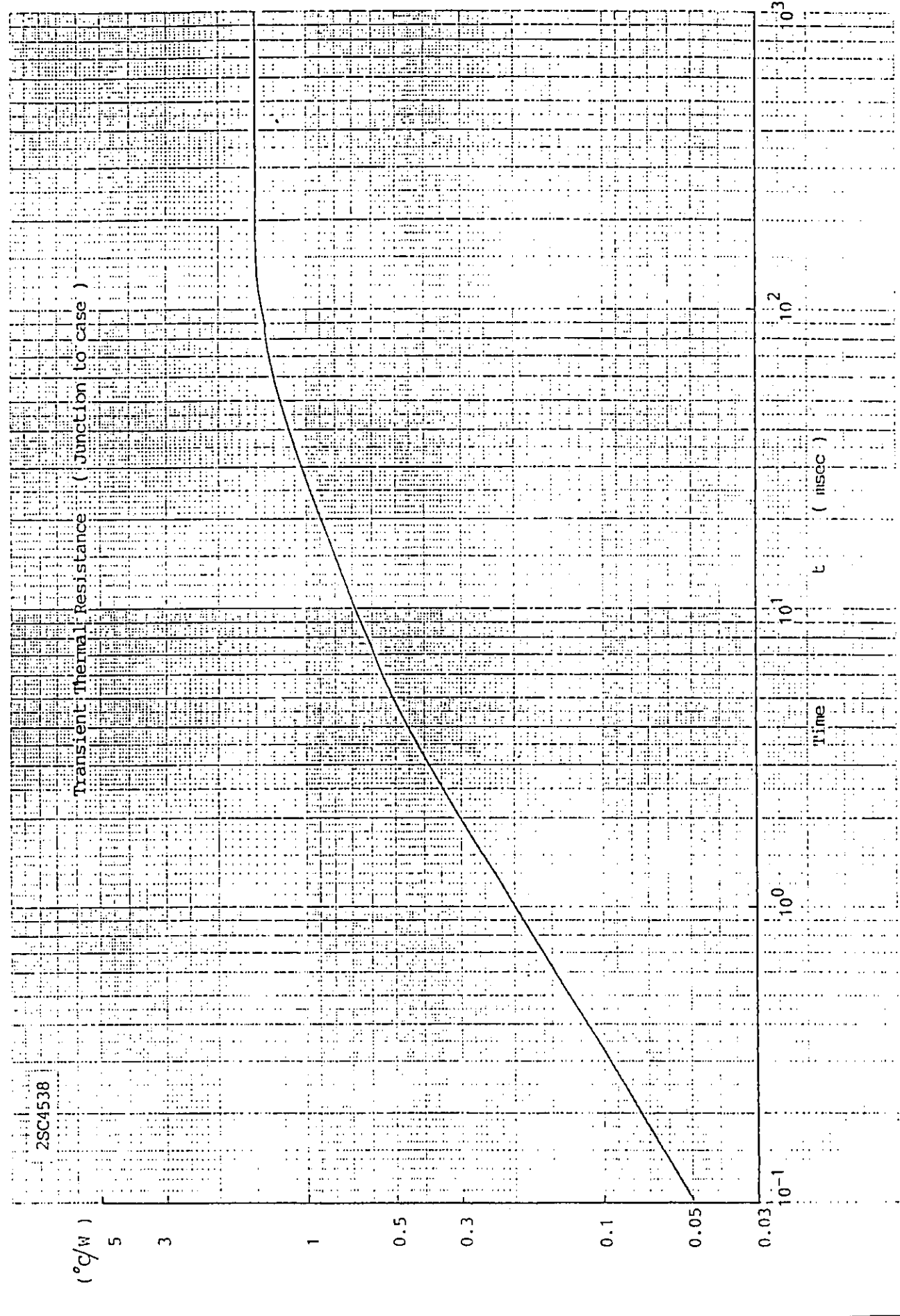
Forward Biased Safe Operating Area



Reverse Biased Safe Operating Area

(A)



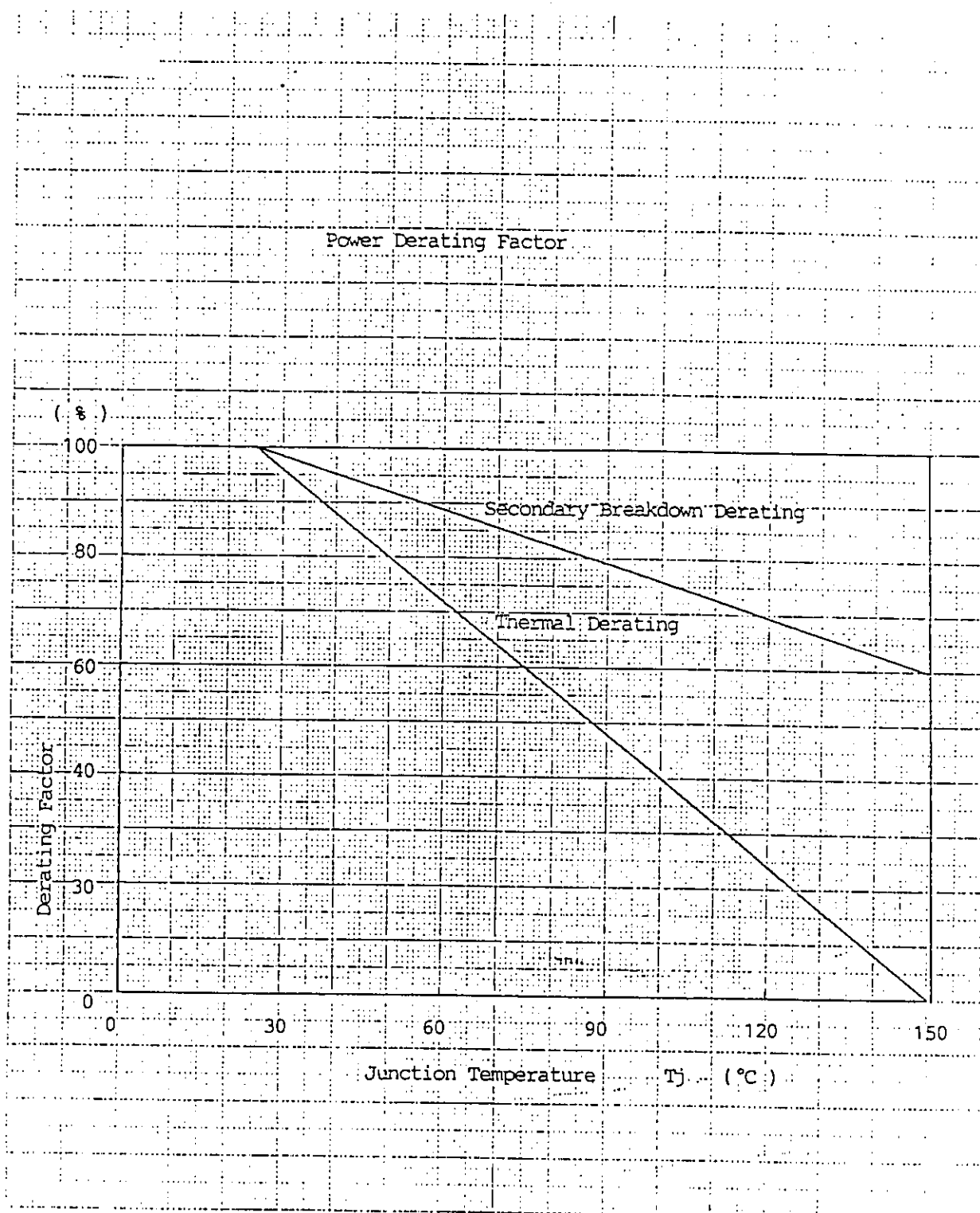


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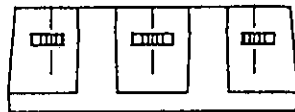
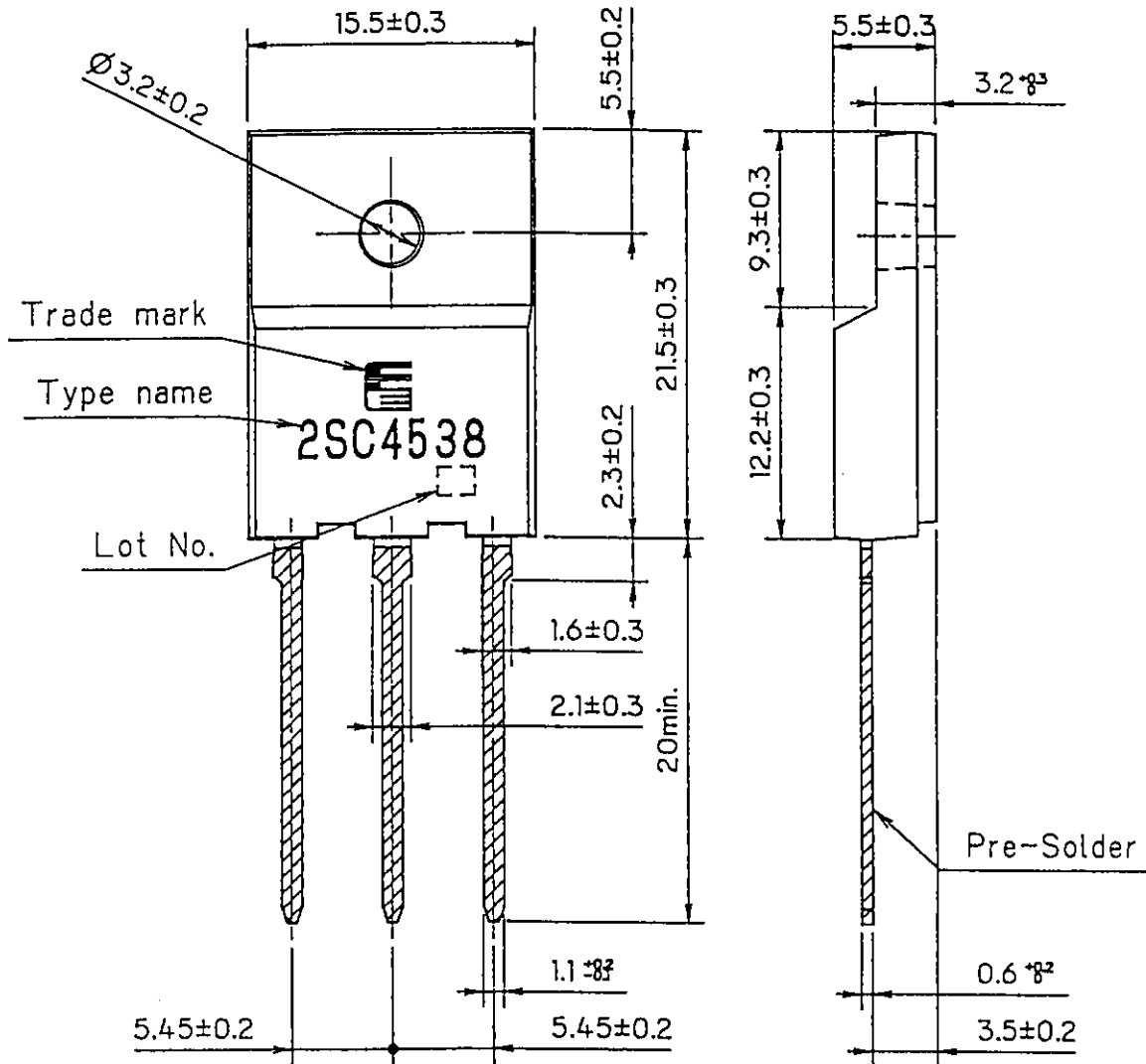
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Y 0257-R-003a



FUJI POWER TRANSISTOR

TYPE : 2SC4538R



① ② ③

CONNECTION

- ① BASE
- ② COLLECTOR
- ③ EMITTER

DIMENSIONS ARE IN MILLIMETERS.

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