

SPECIFICATION

DEVICE NAME : BIPOLAR TRANSISTOR
 TYPE NAME : 2SD2047R
 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.	1/8
CHECKED					

Ratings and Characteristics of Fuji Power Transistor

2SD2047R

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

Item	Symbols	Maximum Rating	Unit
Collector-Base Voltage	V_{CBO}	1500	V
Collector-Emitter Voltage	V_{CEO}	700	
Emitter-Base Voltage	V_{EBO}	10	
Collector Current	I_c	5	A
Collector Current	I_c pulse	10	
Base Current (Continuous)	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)

Characteristics	Symbol	Conditions	Min	Max	Unit
Collector-Base Voltage	V_{CBO}	$I_{CBO} = 1mA$	1500		V
Collector-Emitter Voltage	V_{CEO}	$I_{CEO} = 10mA$	700		
Emitter-Base Voltage	V_{EBO}	$I_{EBO} = 1mA$	10		
Collector Cutoff Current	I_{CBO}	$V_{CBO} = 750V$		50	μA
		$V_{CBO} = 1500V$		1.0	mA
DC Current Gain	h_{FE}	$I_C = 1A, V_{CE} = 5V$	18	50	
Collector Saturation Voltage	$V_{CE(sat)}$	$I_C = 4.5A$		2.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_B = 2.0A$		1.5	
Switching Time	t_{on}	$I_C = 2.5A$		1.0	μs
	t_{stg}	$I_{B1} = +0.25A$		3.0	
	t_f	$I_{B2} = -0.5A$		0.5	

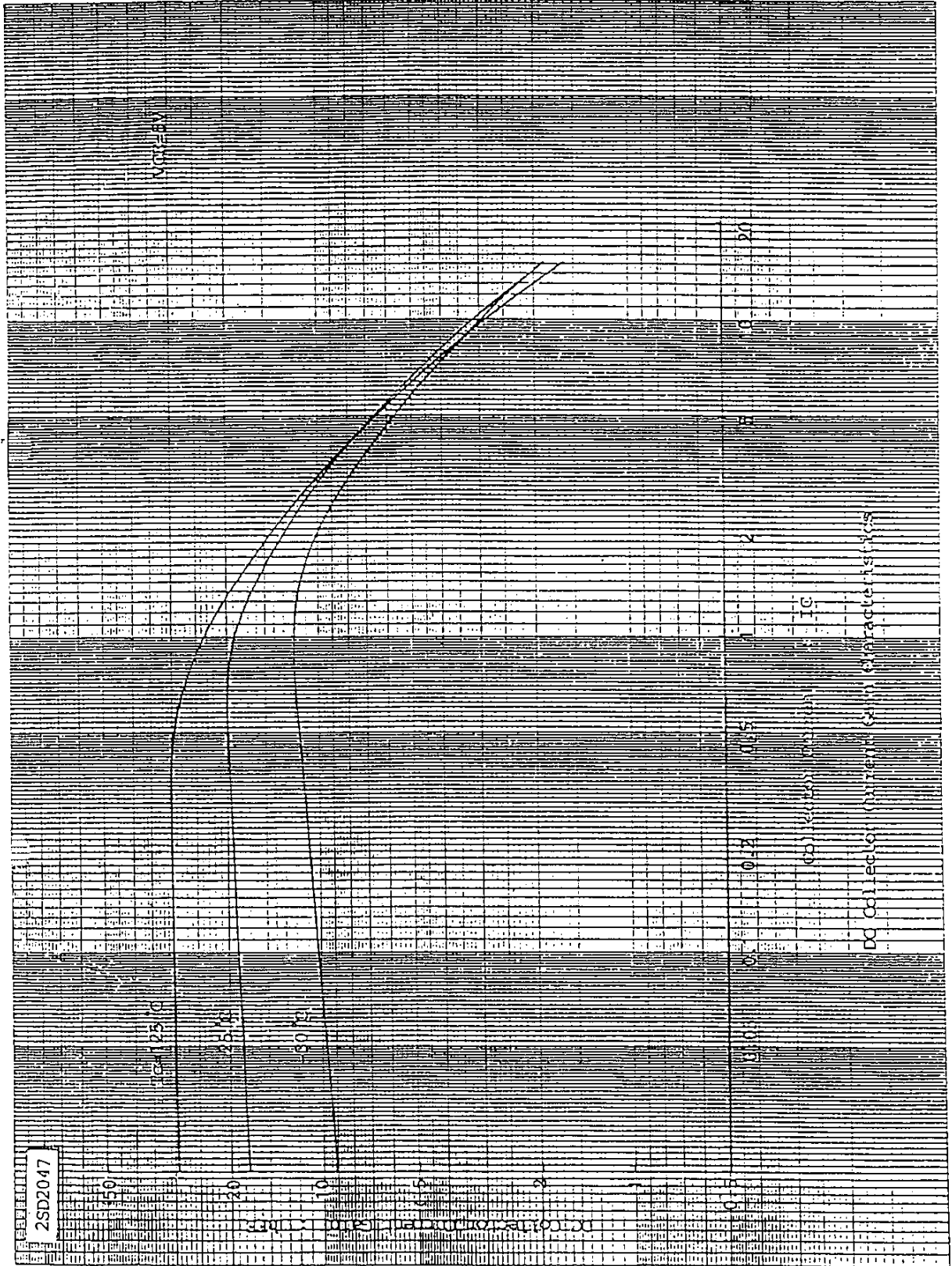
4. Thermal Characteristics

Characteristics	Symbol	Conditions	Min	Max	Unit
Thermal Resistance	$R_{th(j-c)}$	Junction to Case		1.55	°C/W

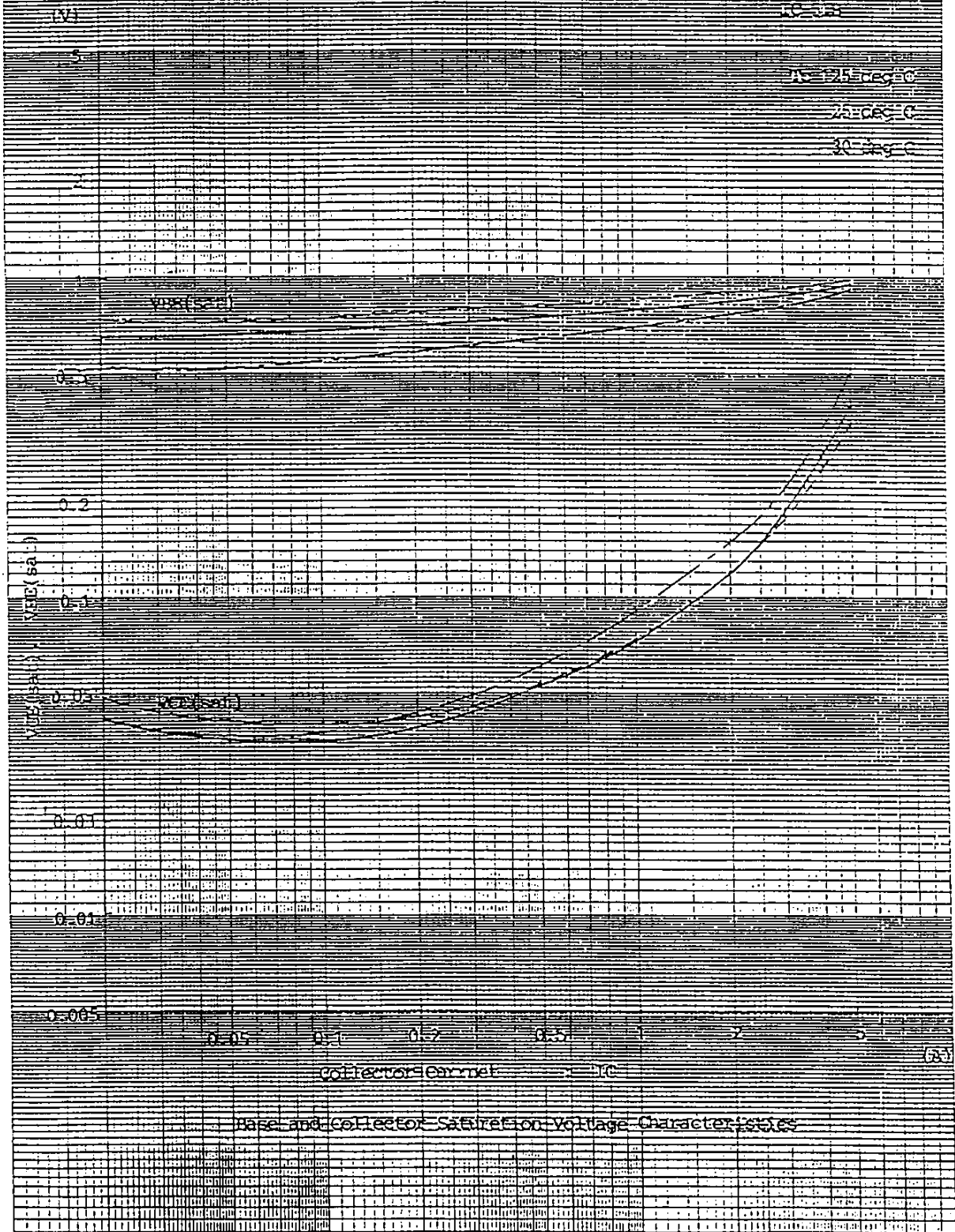
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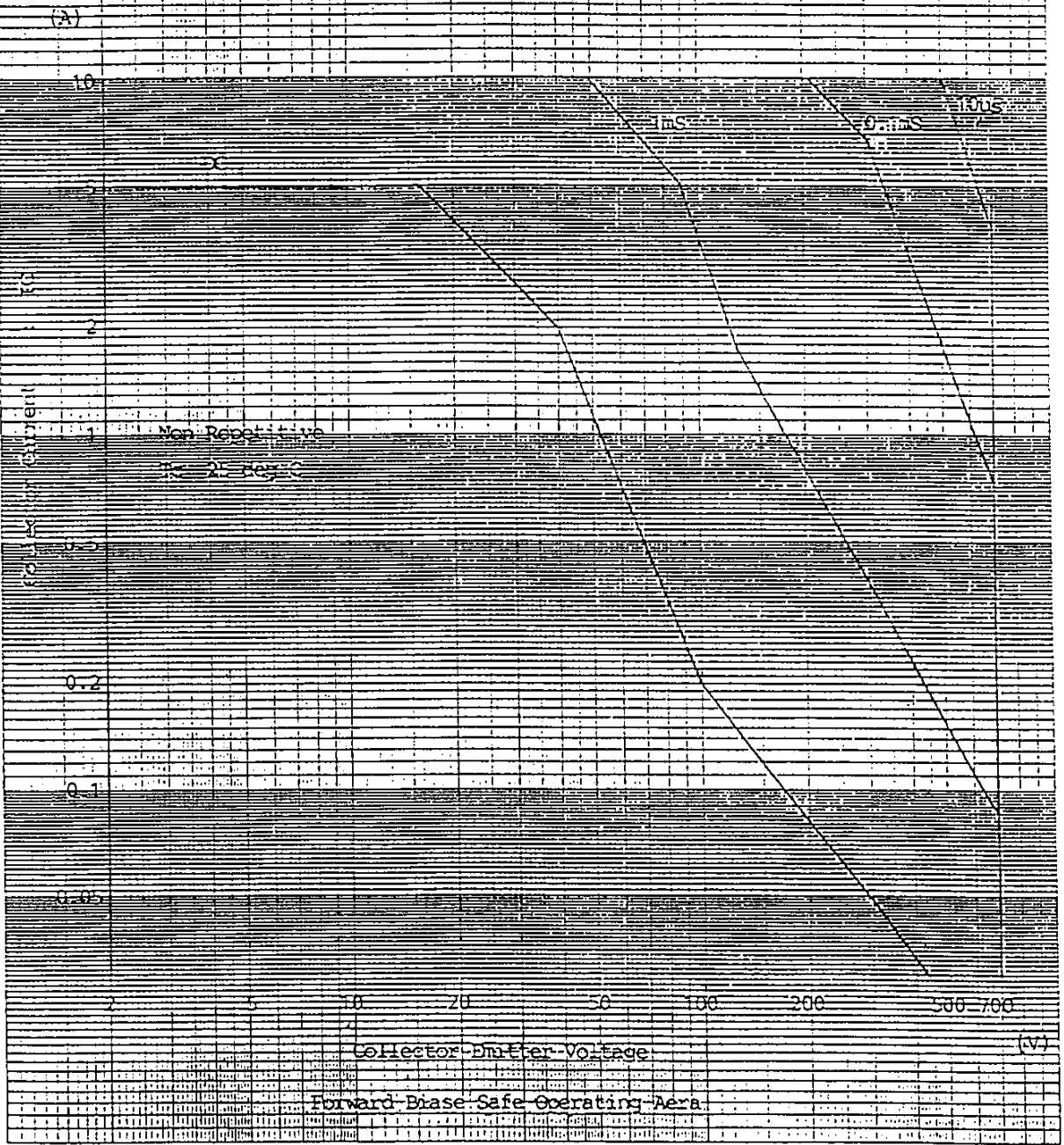


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Base and collector Saturation Voltage Characteristics

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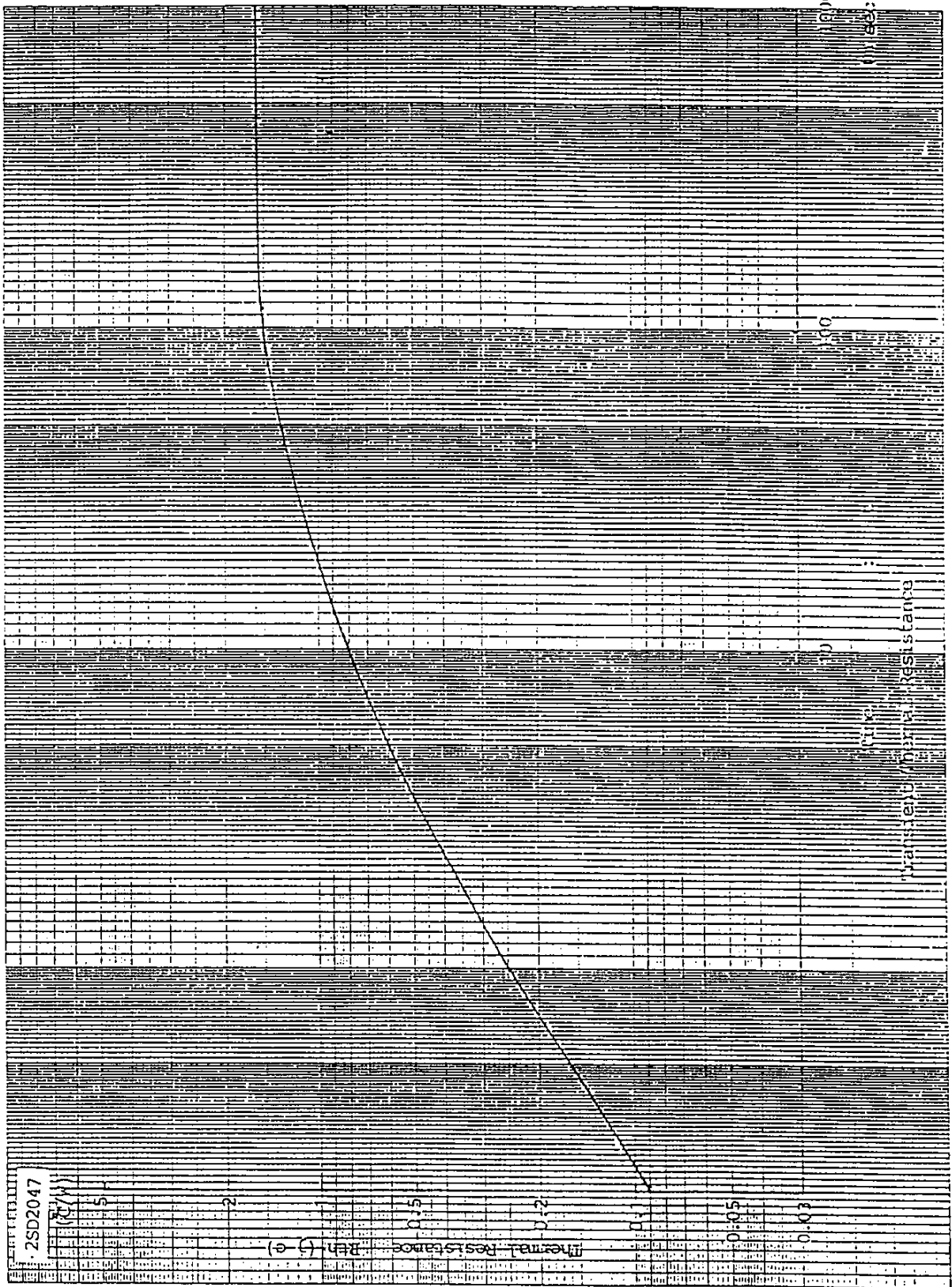


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5

2

1

0.5

0.2

0.1

0.05

0.03

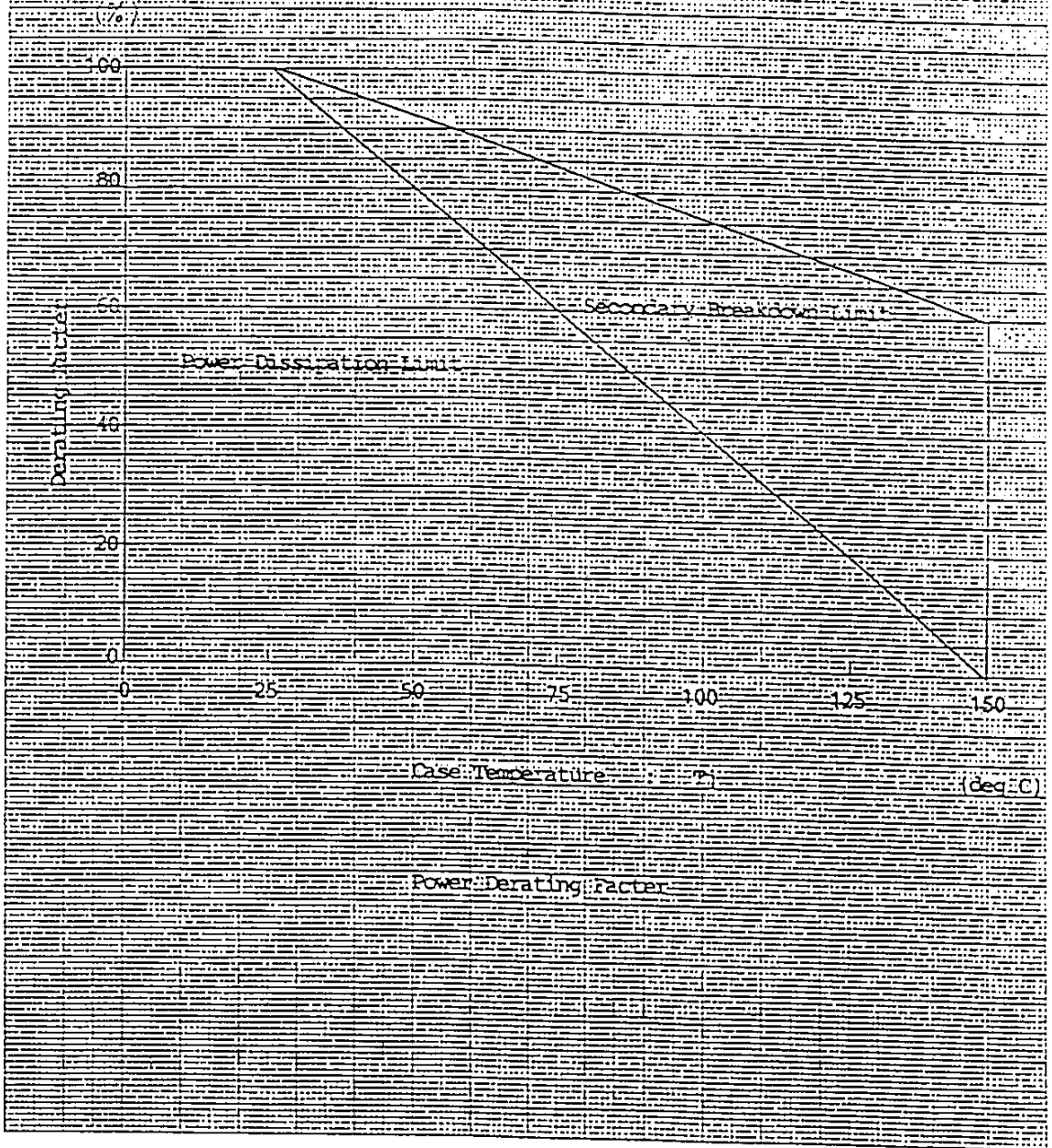
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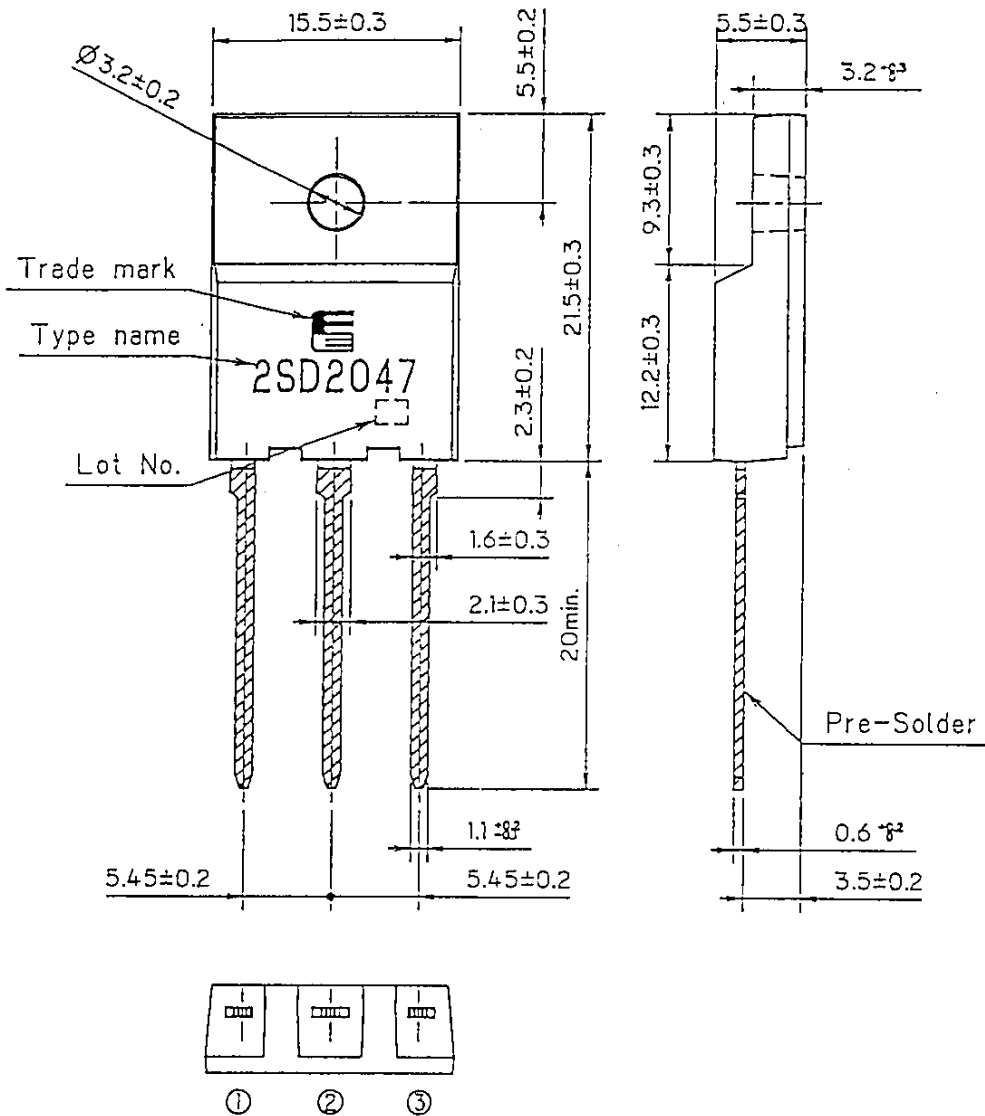
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FUJI POWER TRANSISTOR

TYPE : 2SD2047R



CONNECTION

- ① BASE
- ② COLLECTOR
- ③ EMITTER

DIMENSIONS ARE IN MILLIMETERS

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