

SPECIFICATION

DEVICE NAME : BIPOLAR TRANSISTOR
 TYPE NAME : ET 3 9 3 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.	1/8
CHECKED					

Ratings and Characteristics of Fuji Power Transistor

ET393R

1. Outline Drawings T0-3PF
2. Absolute Maximum Ratings (Tj=25°C)

Item	Symbols	Maximum Ratings	Units
Collector-Base Voltage	V_{CBO}	150	V
Collector-Emitter Voltage	V_{CEO}	100	
Emitter-Base Voltage	V_{EBO}	6	
Collector Current (Continuous)	I_C	1.0	A
Base Current (Continuous)	I_B	1	
Collector Power Dissipation	P_C	80	W
Operating Temperature	T_j	+150	°C
Storage Temperature	T_{stg}	-55 ~ +150	

3. Electrical Characteristics (Tj=25°C)

Item	Symbols	Conditions	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_{CBO} = 1mA$	150		V
Collector-Emitter Voltage	$V_{CEO(SUS)}$	$I_{CBO} = 10mA$	100		
Emitter-Base Breakdown Voltage	V_{EBO}	$I_{EBO} = 1mA$	6		
Collector Cutoff Current	I_{CBO}	$V_{CBO} = 150V$		1.0	mA
Emitter Cutoff Current	I_{EBO}	$V_{EBO} = 6V$		1.0	
DC Current Gain	h_{FE}	$I_C = 3A \quad V_{CE} = 4V$	700		
Collector Saturation Voltage	$V_{CE(SAT)}$	$I_C = 1.5A$		1.5	V
Base Saturation Voltage	$V_{BE(SAT)}$	$I_B = 50mA$		2.0	

4. Thermal Characteristics

Item	Symbols	Conditions	Min	Max	Unit
Thermal Resistance	$R_{\theta(j-c)}$	Junction to Case		1.55	°C/W

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ET393

$V_{CE} = 4V$

--- $T_C = 50^\circ C$

— $T_C = 25^\circ C$

— $T_C = -30^\circ C$

50000

30000

10000

h_{FE}

DC Current Gain

5000

3000

1000

500

300

100

0.03

0.05

0.1

0.3

0.5

1

3

5

10

Collector Current I_C (A)

DC Current Gain

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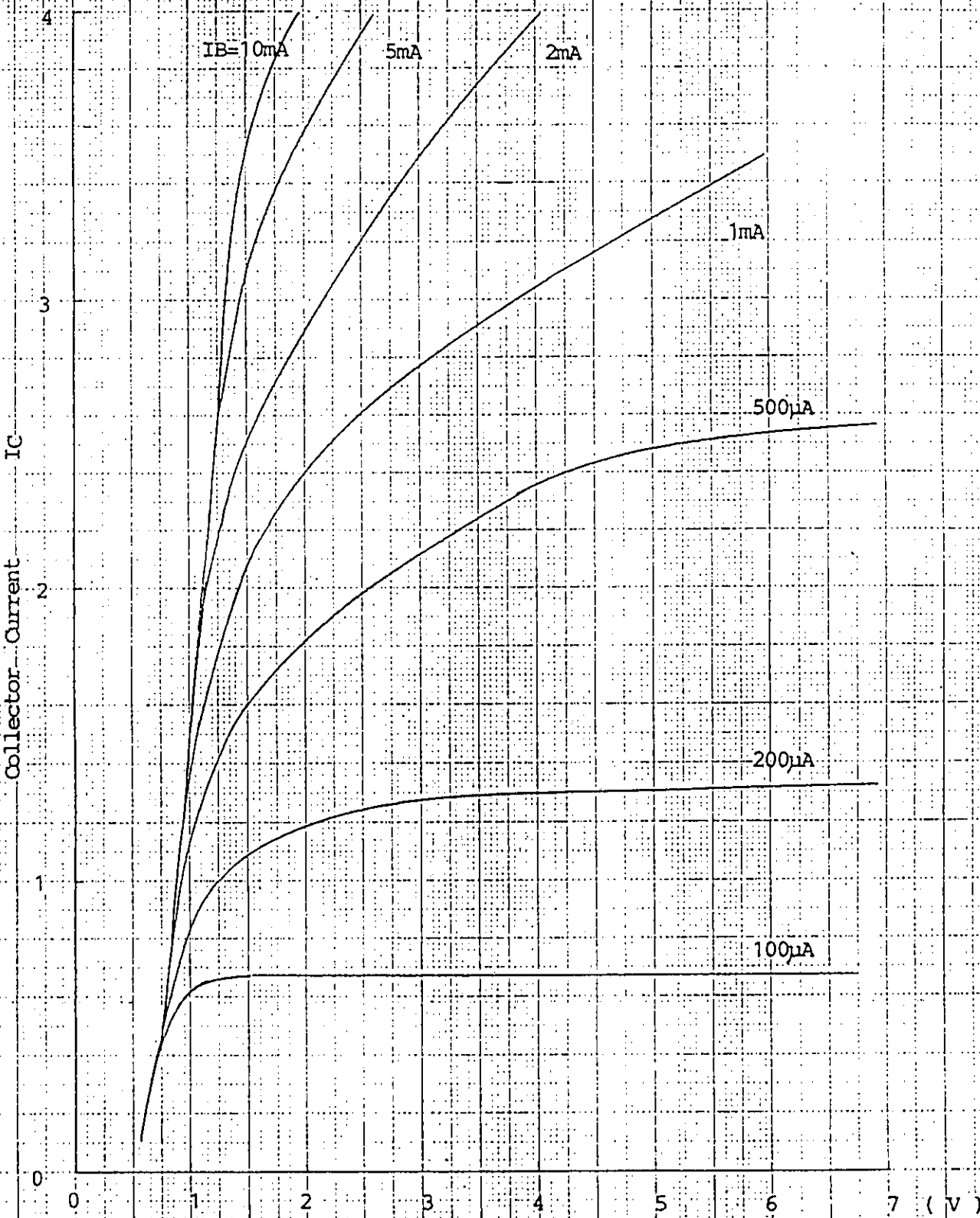
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ET393

Collector Output Characteristics

(A)



Collector Current I_C

Collector Emitter Voltage V_{CE}

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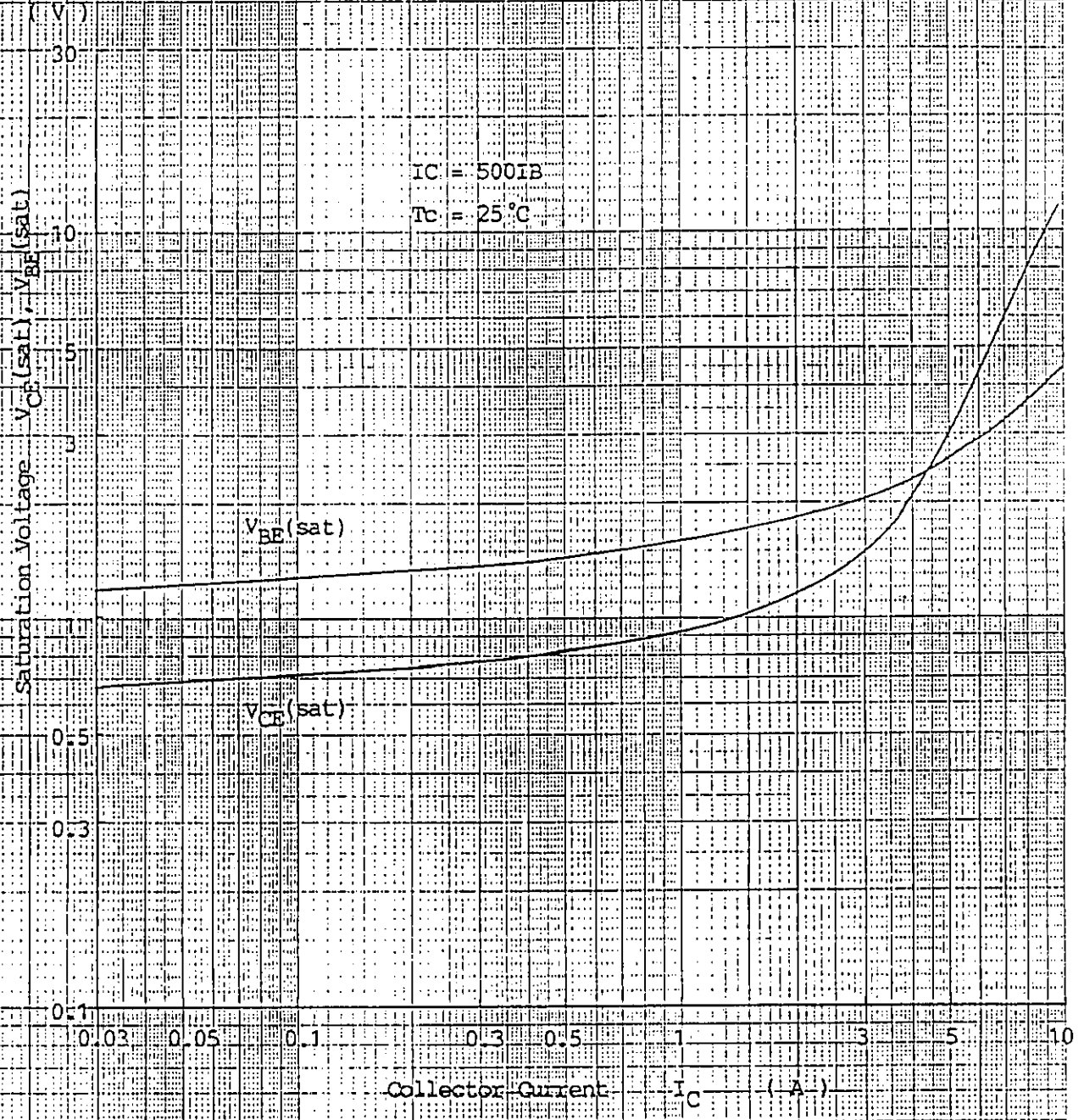
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Collector and Base Saturation Voltage



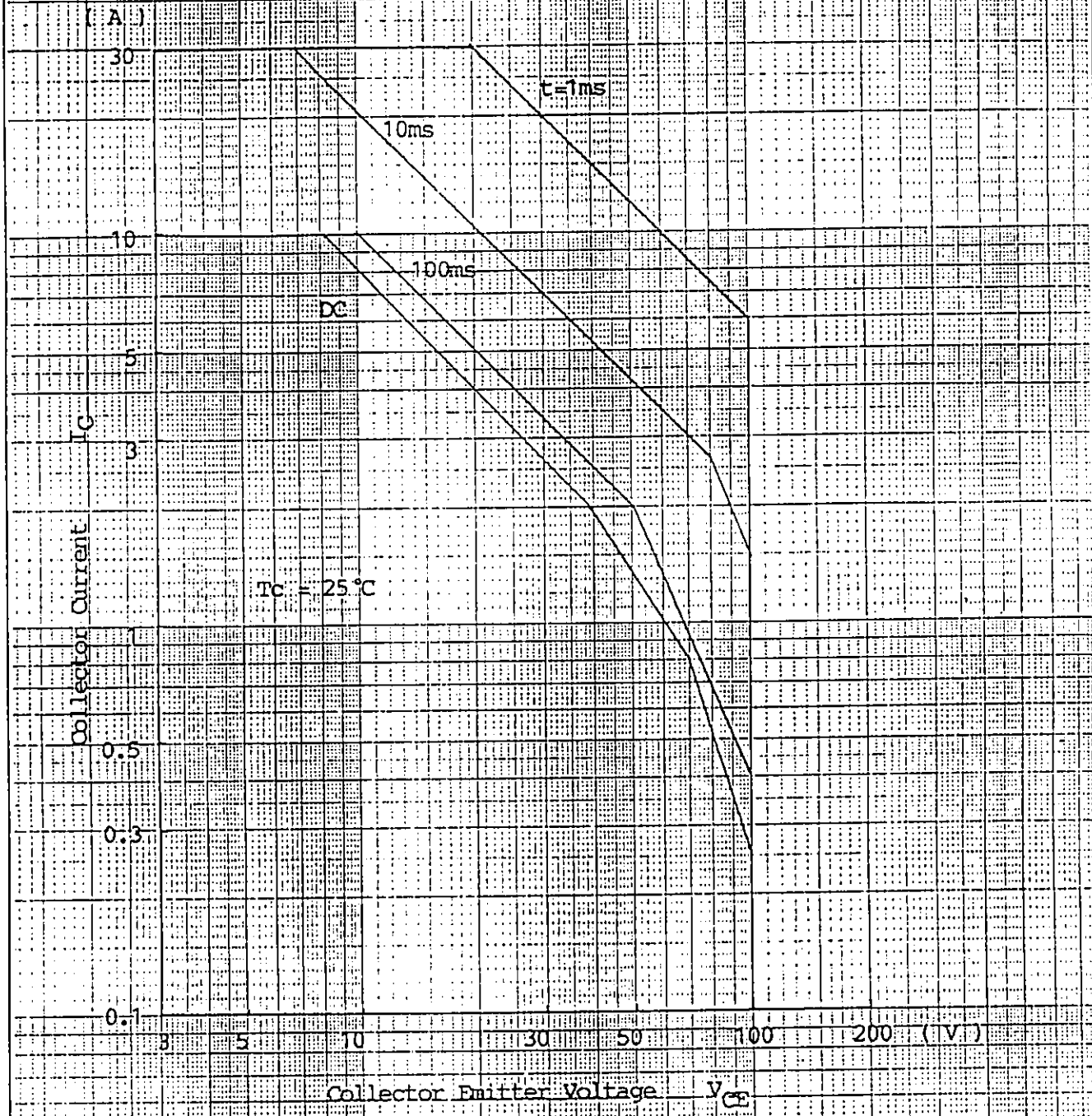
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ET393

Transient Thermal Impedance

(C/w)

5.0

2.0

2.0

1.0

0.5

0.2

0.1

0.05

0.02

Rth(j-c)

Thermal Resistance

1000
500
200
100
50
20
10
5.0
2.0
1.0
0.5
0.2

Time : T (msec)

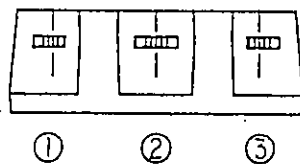
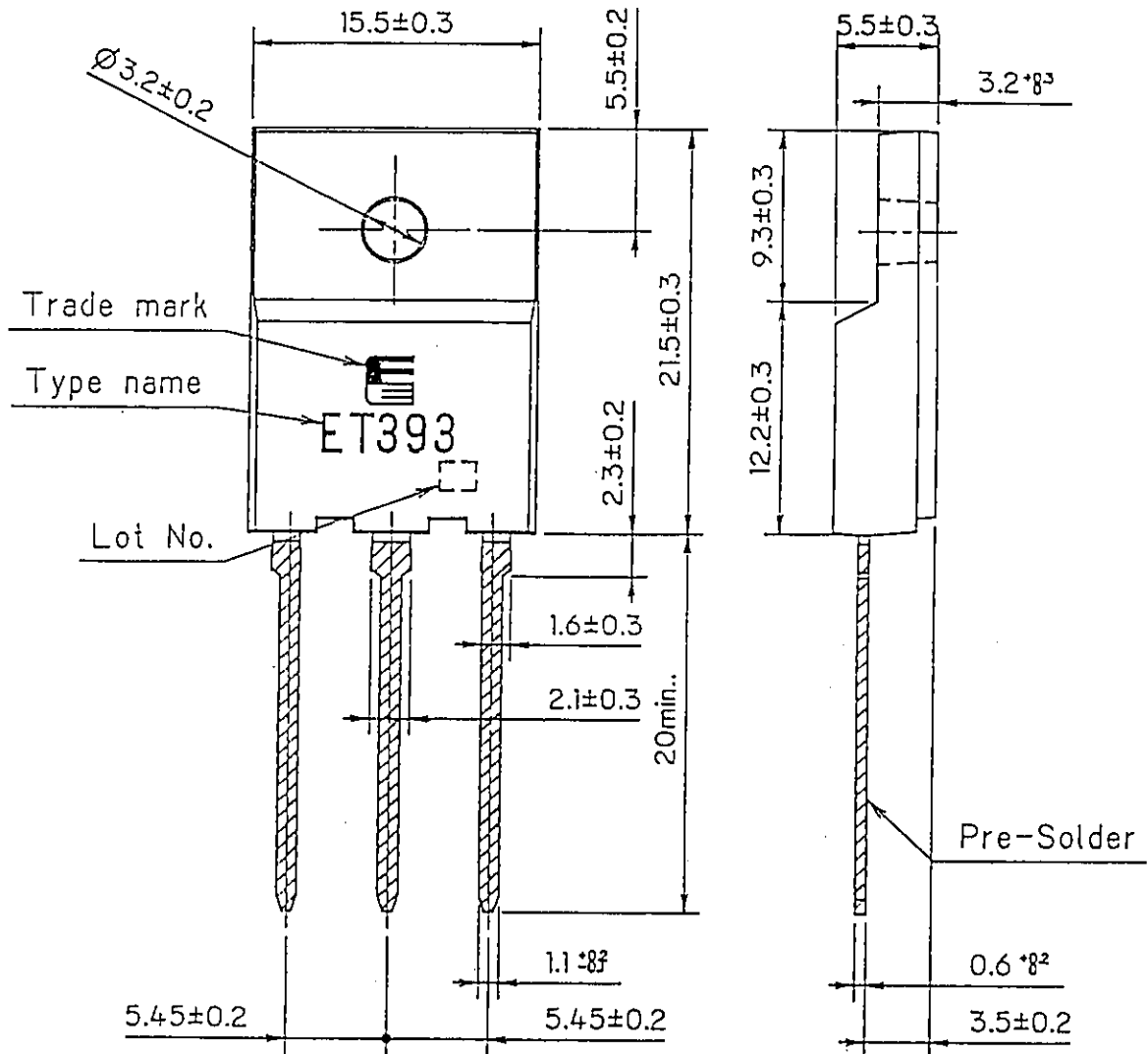
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FUJI POWER TRANSISTOR
TYPE : ET393R



CONNECTION

- ① BASE
- ② COLLECTOR
- ③ EMITTER

DIMENSIONS ARE IN MILLIMETERS.

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