

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.

PDF DRAWN CHECKED	DATE	NAME	APPROVED	Fuji Electric Co.,Ltd.	
				DWG. NO.	1/8



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	$R_{th(j-c)}$	Junction to Case		1.55	°C/W

ET393

$V_{CE} = 4V$

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

— $T_c = 25^\circ C$

— $T_c = 30^\circ C$

50000
30000

10000

5000

3000

1000

500

300

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

DC Current Gain

h_{FE}

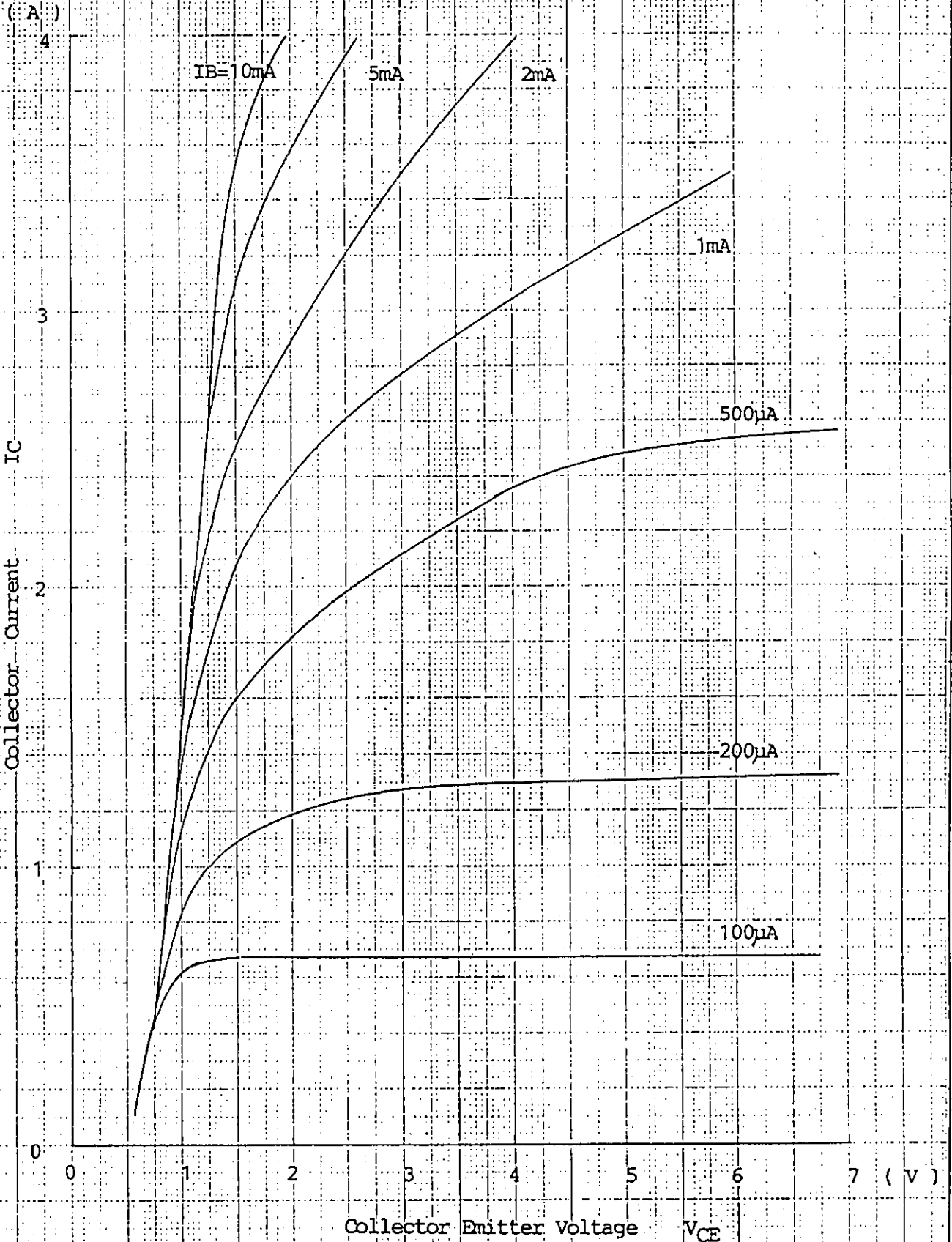
0.03 0.05 0.1 0.3 0.5 1 3 5 10

Collector Current I_C (A)

DC Current Gain

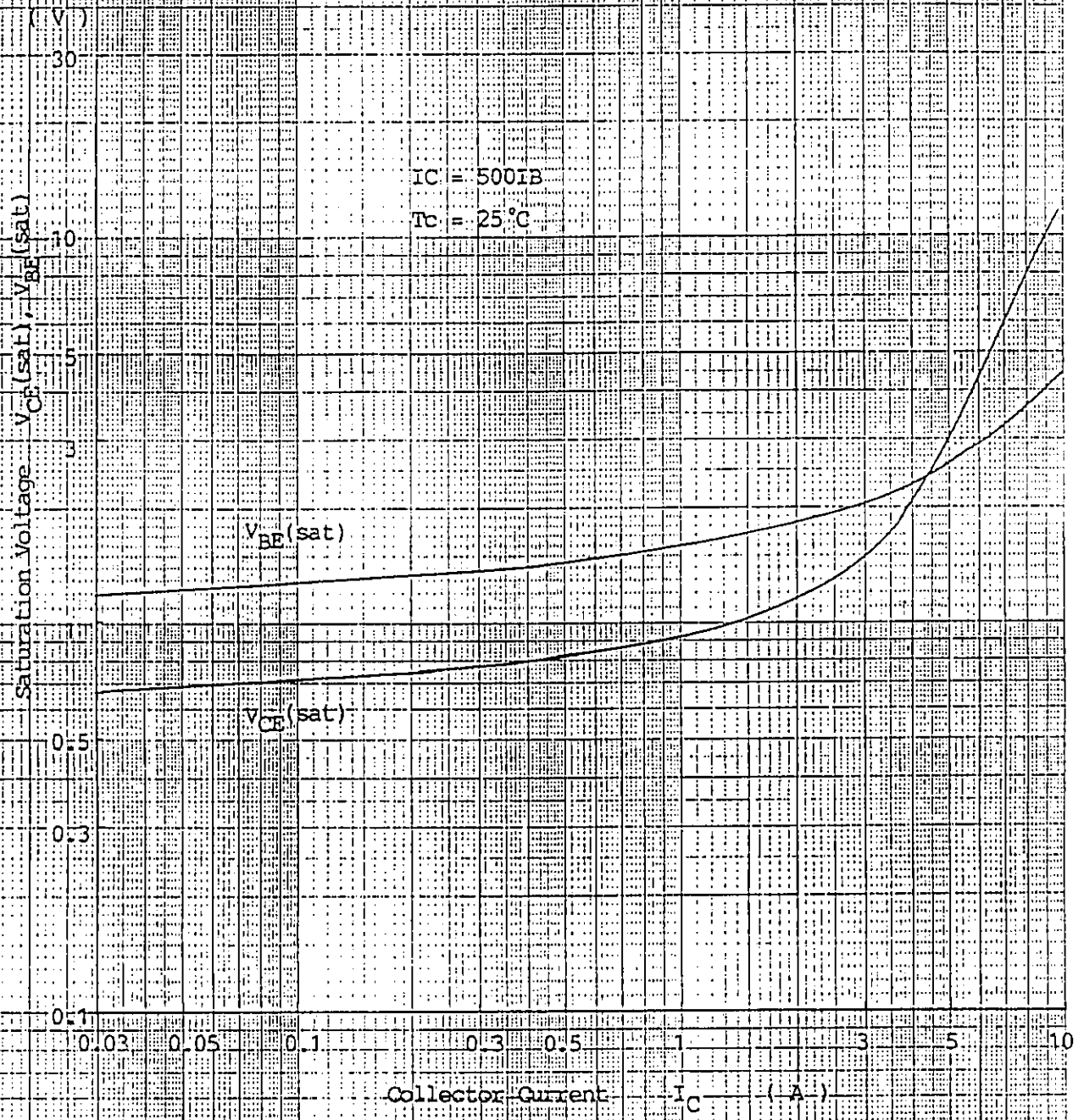
ET393

Collector Output Characteristics



ET398

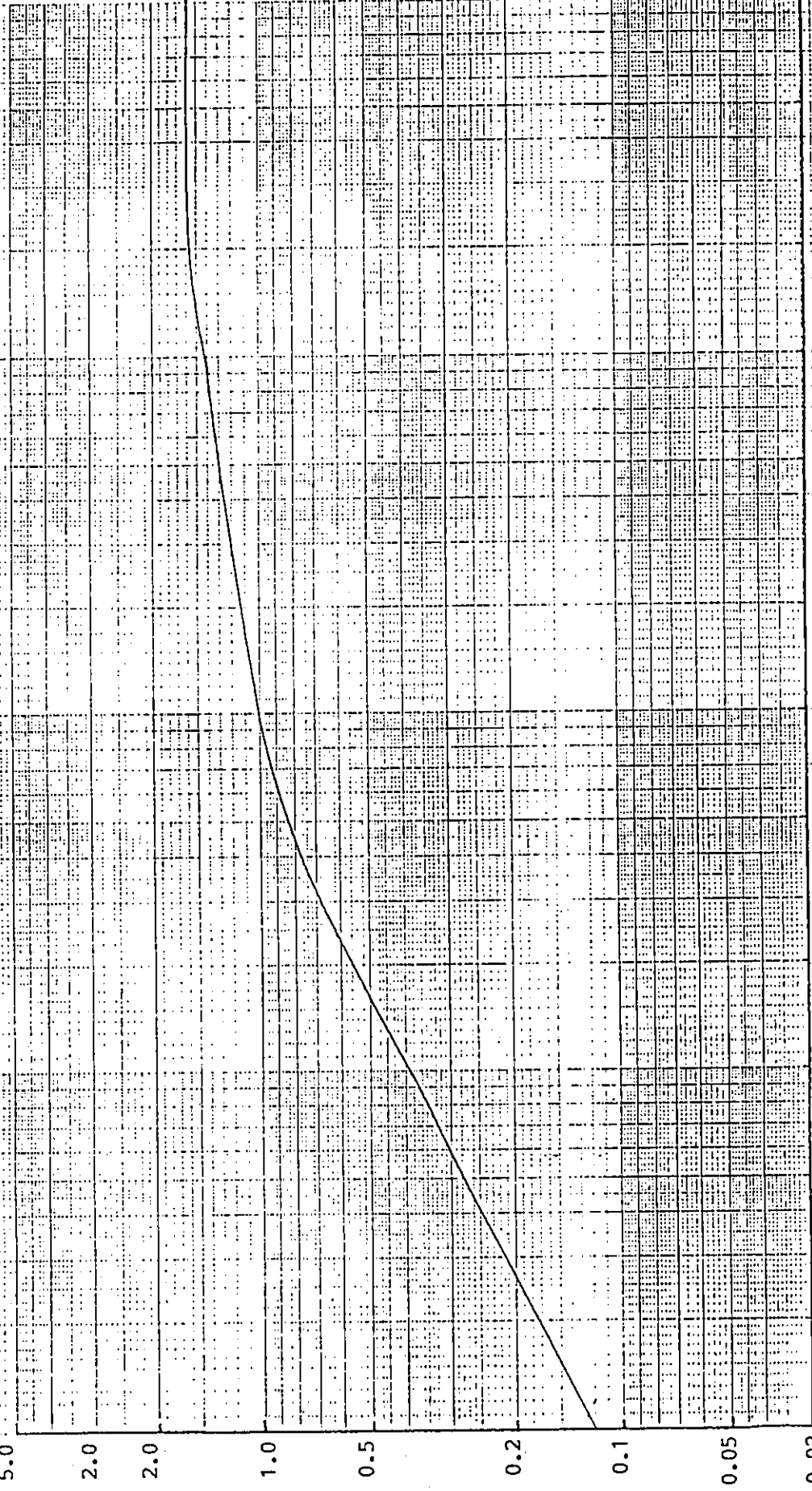
Collector and Base Saturation Voltage



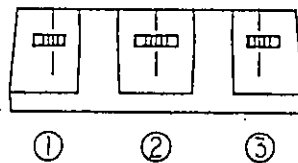
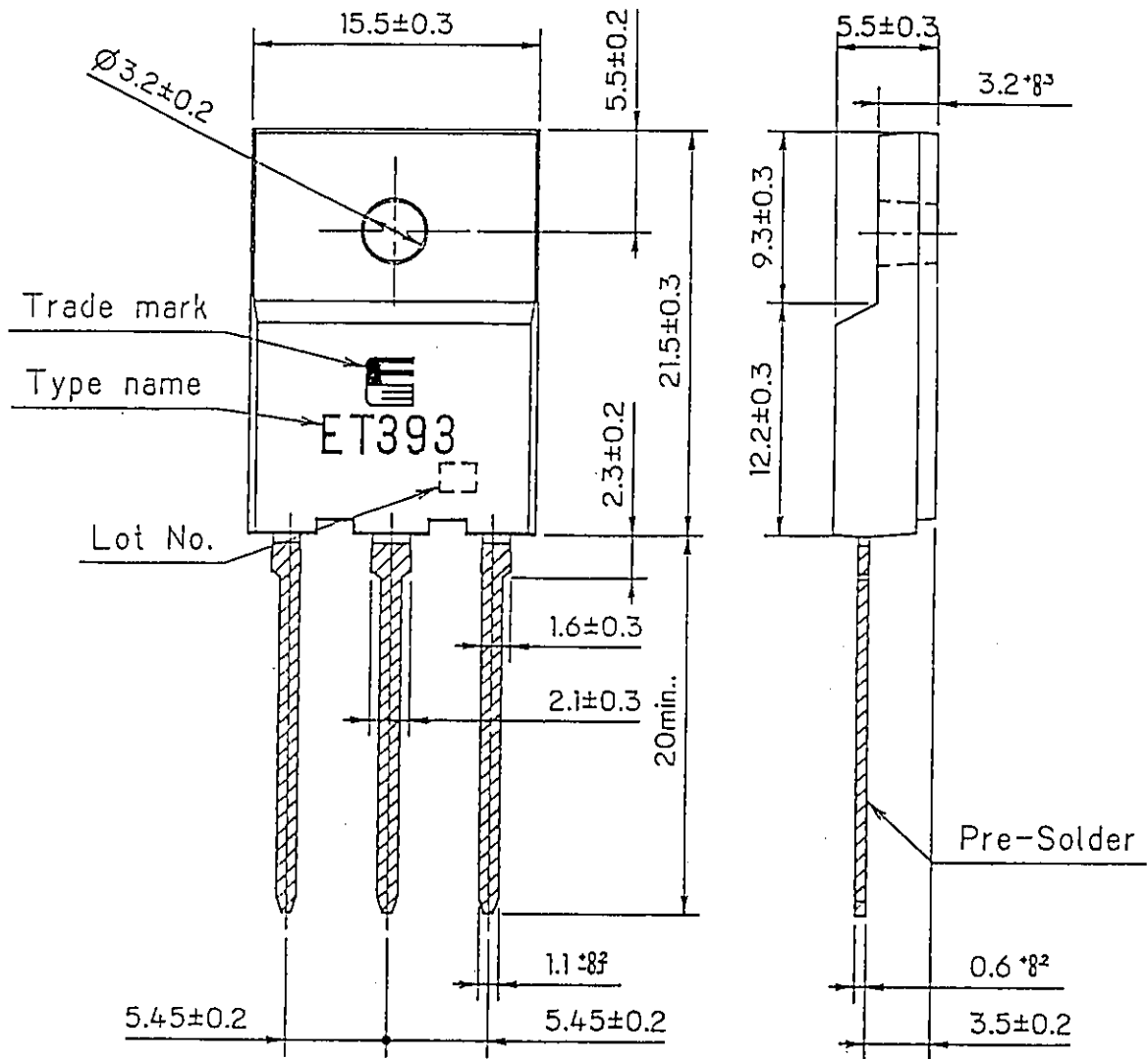
ET393

(C/w)

Transient Thermal Impedance



FUJI POWER TRANSISTOR
TYPE : ET393R



CONNECTION

- ① BASE
- ② COLLECTOR
- ③ EMITTER

DIMENSIONS ARE IN MILLIMETERS.

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