

Silicon NPN Power Transistors

2SC789

DESCRIPTION

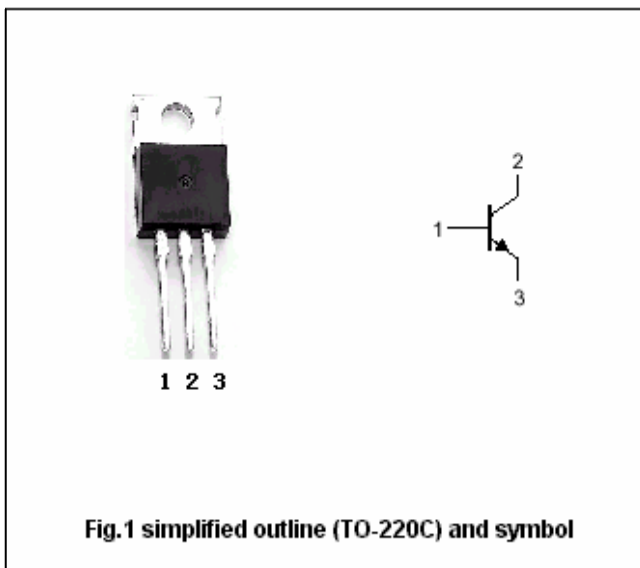
- With TO-220C package
- Low collector saturation voltage

APPLICATIONS

- For medium power linear and switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter



Absolute maximum ratings (Ta=25 )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	70	V
$V_{CEO}$	Collector-emitter voltage	Open base	70	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		4	A
$I_B$	Base current		1	A
$P_C$	Collector power dissipation	$T_C=25$	30	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =25m A; I <sub>B</sub> =0	70			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA; I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2 A; I <sub>B</sub> =0.2 A			1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =2 A; I <sub>B</sub> =0.2 A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =70V; I <sub>E</sub> =0			0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			0.1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V	40		240	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =10V	3			MHz

◆ h<sub>FE</sub> classifications

O	R	Y
40-80	70-140	120-240

PACKAGE OUTLINE

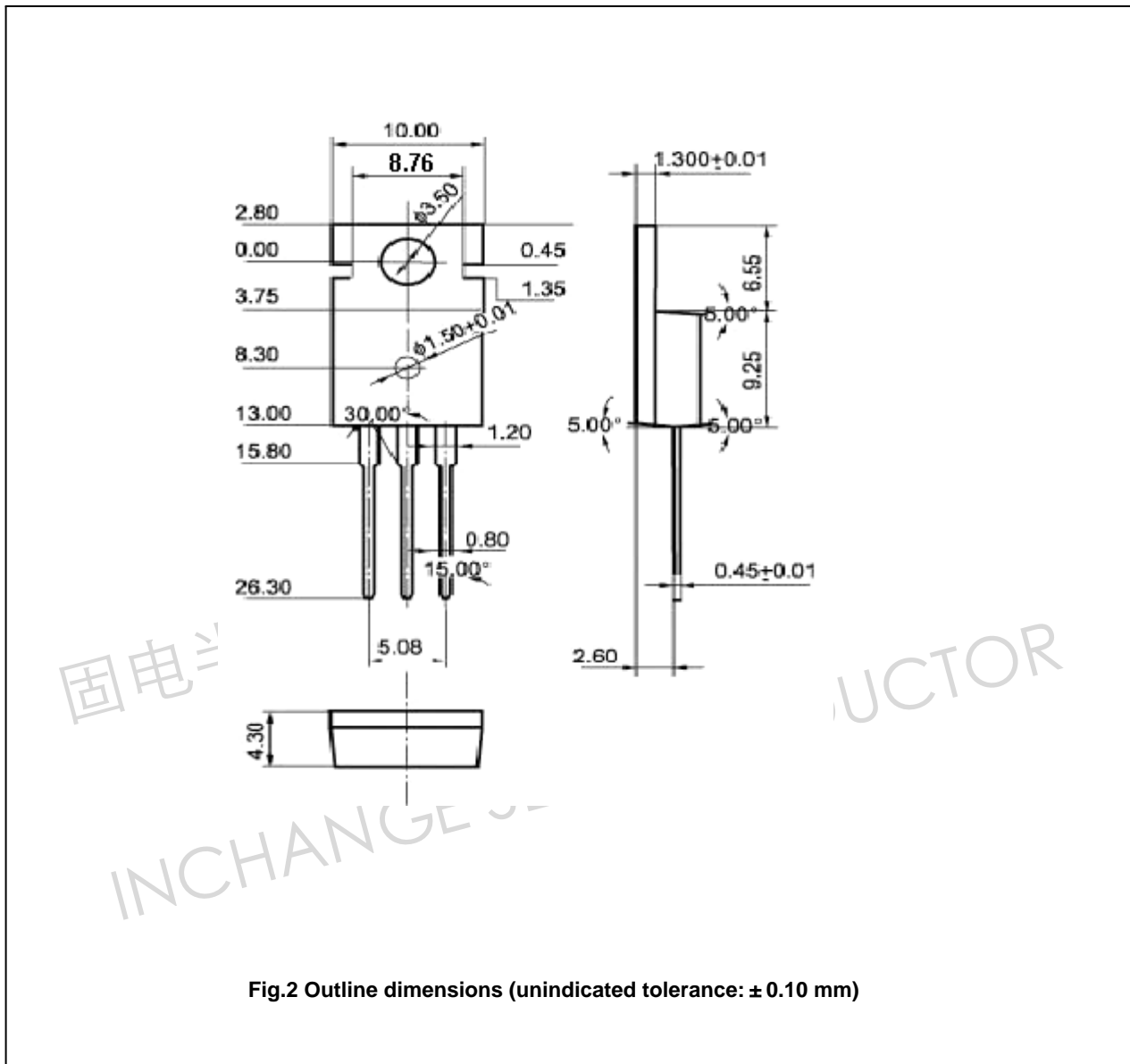


Fig.2 Outline dimensions (unindicated tolerance: ± 0.10 mm)