

Silicon NPN Power Transistors

2SD1407

DESCRIPTION

- With TO-220Fa package
- High breakdown voltage
- Low collector saturation voltage
- Complement to type 2SB1016

APPLICATIONS

- Power amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

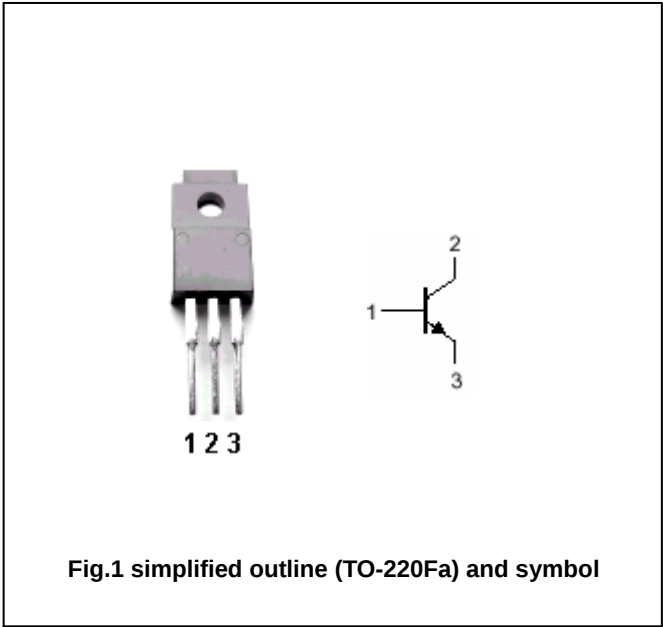


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	100	V
V _{CEO}	Collector -emitter voltage	Open base	100	V
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		5	A
I _B	Base current		0.5	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

Tj=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=50mA; I_B=0$	100			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=4A; I_B=0.4A$			2.0	V
V_{BE}	Base-emitter voltage	$I_C=1A; V_{CE}=5V$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=100V; I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V; I_C=0$			1.0	mA
h_{FE-1}	DC current gain	$I_C=1A; V_{CE}=5V$	40		240	
h_{FE-2}	DC current gain	$I_C=4A; V_{CE}=5V$	20			
f_T	Transition frequency	$I_C=1A; V_{CE}=5V$		12		MHz
C_{OB}	Collector output capacitance	$f=1MHz; V_{CB}=10V; I_E=0$		100		pF

◆ h_{FE-1} Classifications

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

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PACKAGE OUTLINE

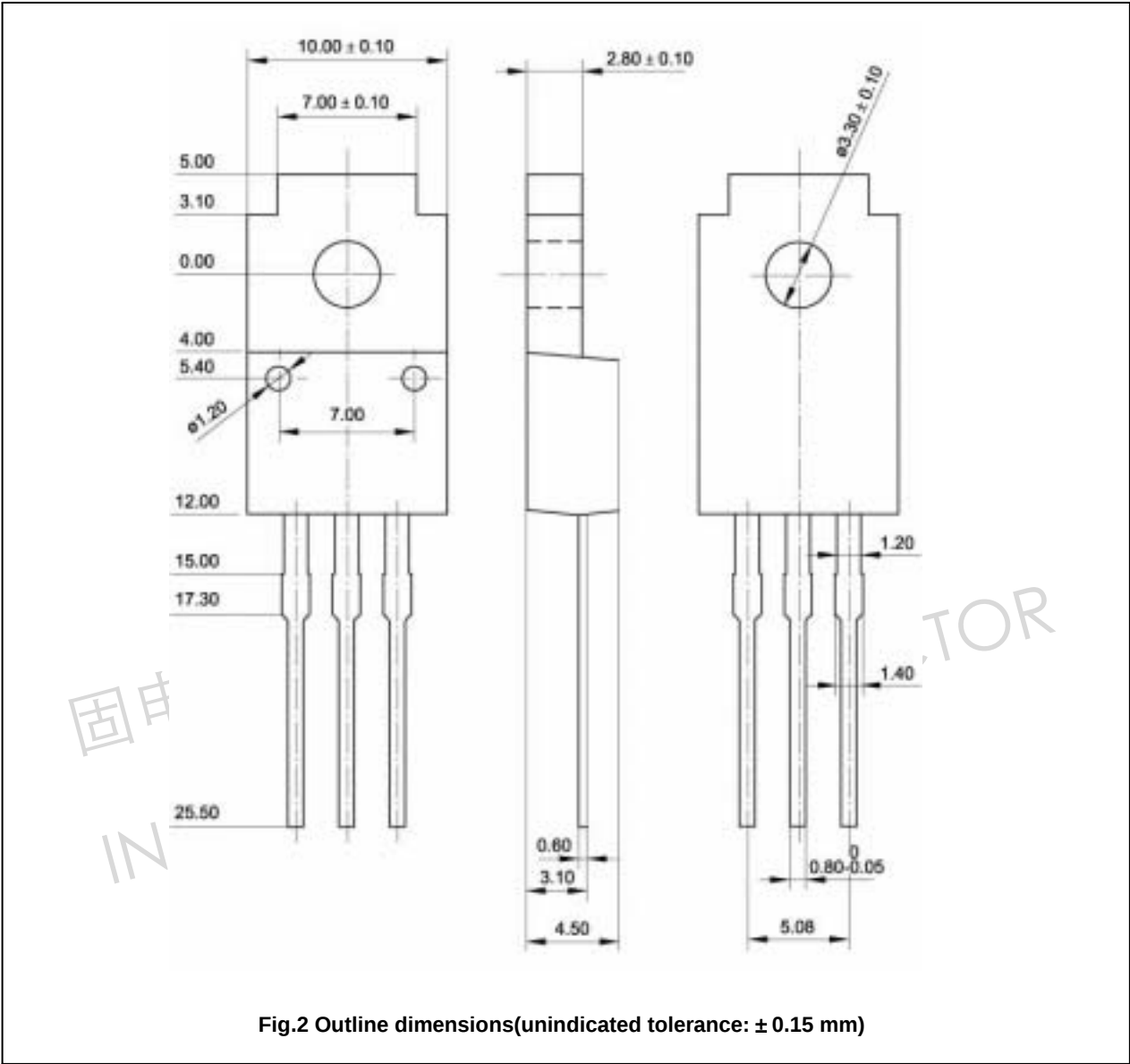


Fig.2 Outline dimensions(unindicated tolerance: ± 0.15 mm)

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