

Silicon PNP Power Transistors

2SA1757

DESCRIPTION

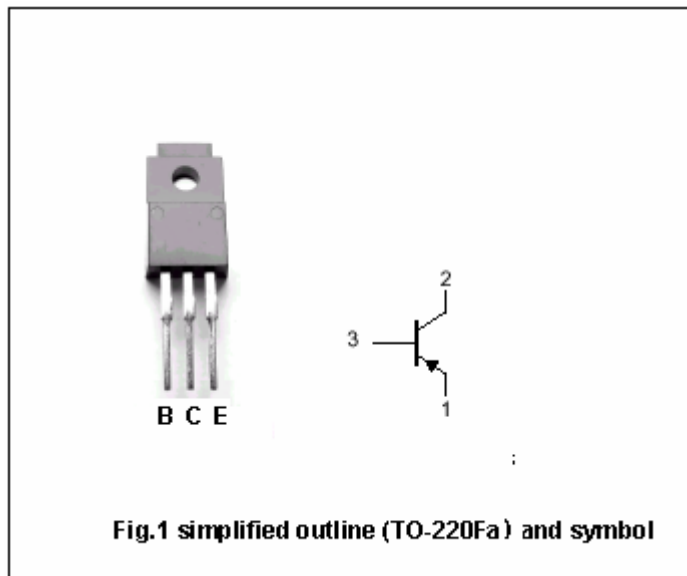
- With TO-220Fa package
- Low saturation voltage
- Wide area of safe operation

APPLICATIONS

- For switching applications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector
3	Base

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-100	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-5	A
I_{CM}	Collector current-peak		-10	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	25	W
		$T_a=25^\circ\text{C}$	1	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Silicon PNP Power Transistors

2SA1757

CHARACTERISTICS

T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-1mA, I _B =0	-60			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-50μA, I _C =0	-5			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =-3A, I _B =-0.15A			-0.3	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =-4A, I _B =-0.2A			-0.5	V
V _{BEsat-1}	Base-emitter saturation voltage	I _C =-3A, I _B =-0.15A			-1.2	V
V _{BEsat-2}	Base-emitter saturation voltage	I _C =-4A, I _B =-0.2A			-1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-100V, I _E =0			-10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V, I _C =0			-10	μA
h _{FE}	DC current gain	I _C =-1A; V _{CE} =-2V	160		320	
C _{ob}	Output capacitance	I _E =0; V _{CB} =-10V, f=1MHz		130		pF
f _T	Transition frequency	I _C =-0.5A; V _{CE} =-10V		80		MHz

Switching times

t _{on}	Turn-on time	I _C =-3A; R _L =10Ω I _{B1} =- I _{B2} =-0.15A V _{CC} ≈-30V			0.3	μs
t _s	Storage time				1.5	μs
t _f	Fall time				0.3	μs

Silicon PNP Power Transistors

2SA1757

PACKAGE OUTLINE

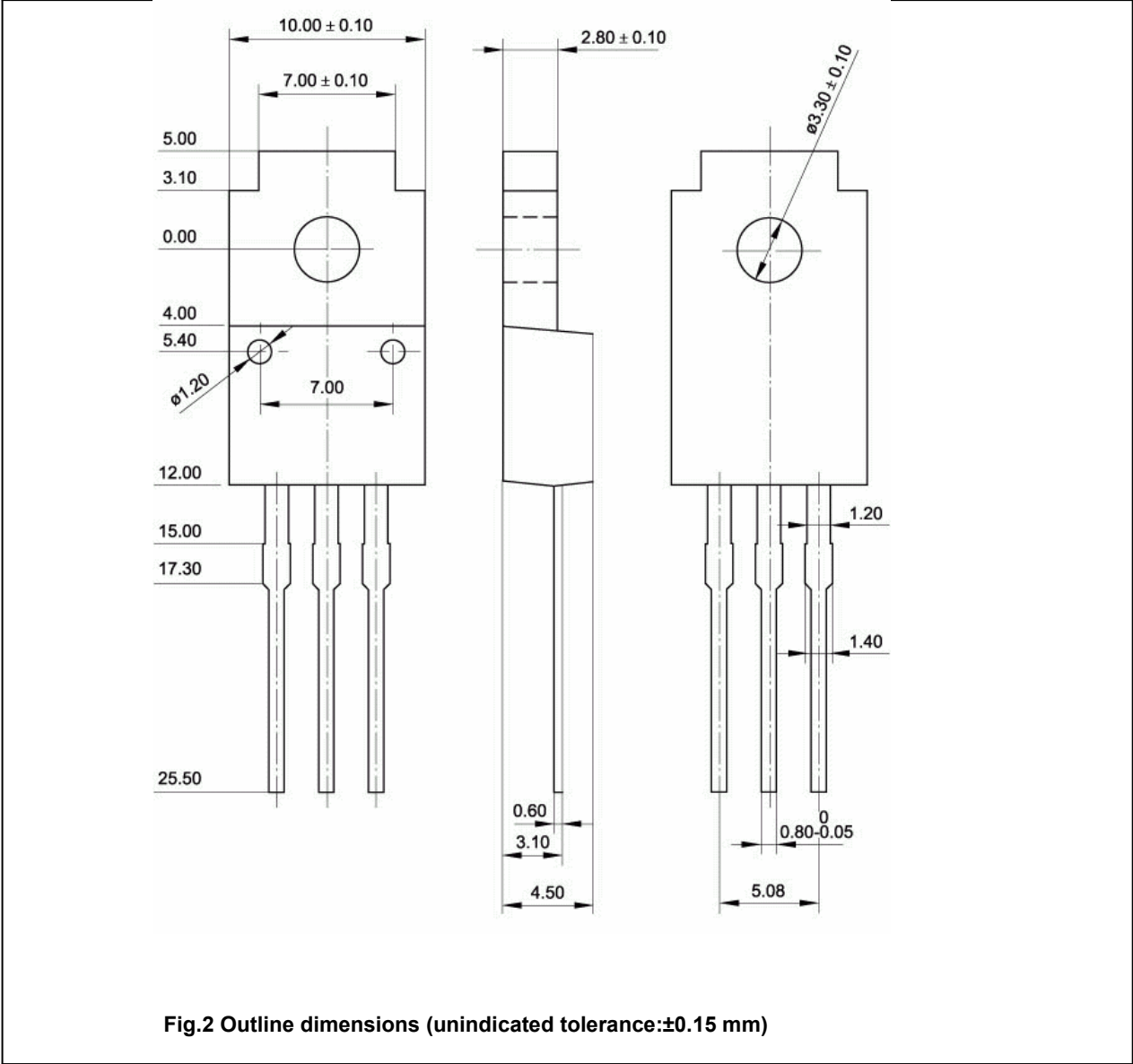


Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)