

Silicon PNP Power Transistors

2SA1659 2SA1659A

DESCRIPTION

- With TO-220F package
- Complement to type 2SC4370/4370A
- High transition frequency f_T

APPLICATIONS

- High voltage applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

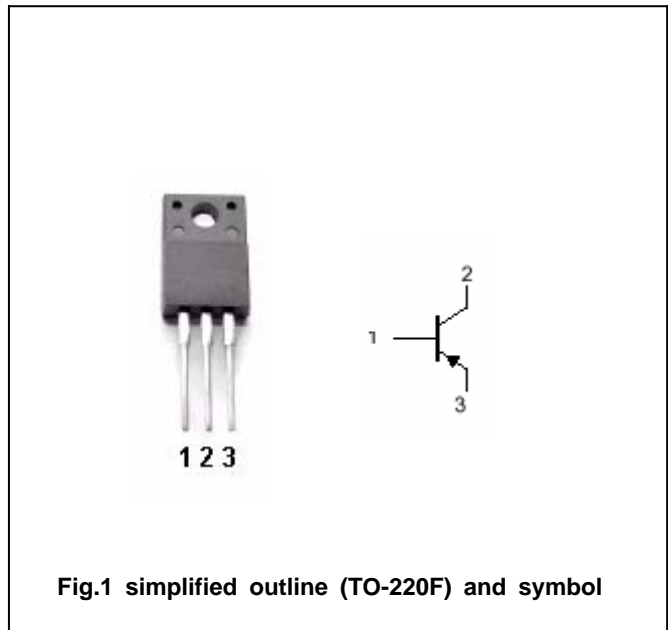


Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SA1659	-160	V
		2SA1659A	-180	
V_{CEO}	Collector-emitter voltage	2SA1659	-160	V
		2SA1659A	-180	
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-1.5	A
I_B	Base current		-0.15	A
P_C	Collector dissipation	$T_C=25^\circ\text{C}$	20	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SA1659	-160			V
		2SA1659A	-180			
V _{CEsat}	Collector-emitter saturation voltage	I _C =-0.5A; I _B =-50mA			-1.5	V
V _{BE}	Base-emitter on voltage	I _C =-0.5A; V _{CE} =-5V			-1.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-160V; I _E =0			-1	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-1	μ A
h _{FE}	DC current gain	I _C =-0.1A; V _{CE} =-5V	70		240	
f _T	Transition frequency	I _C =-0.1A; V _{CE} =-10V		100		MHz
C _{OB}	Output capacitance	I _E =0; V _{CB} =-10V; f=1MHz		30		pF

◆ h_{FE} classifications

O	Y
70-140	120-240

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PACKAGE OUTLINE

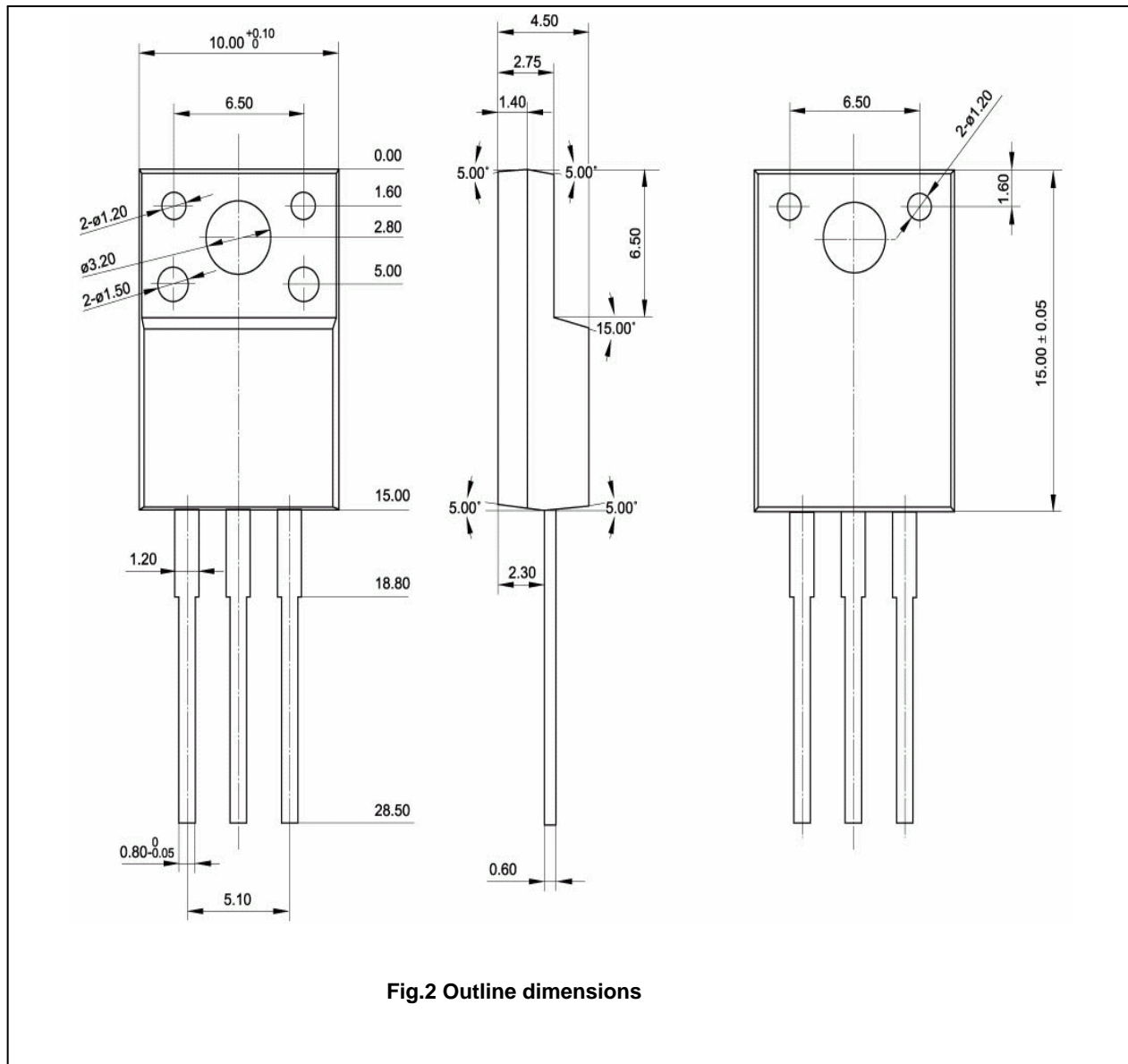


Fig.2 Outline dimensions