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

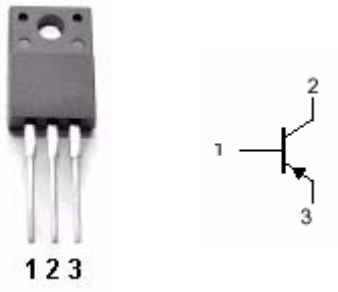

Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SA1659	Open emitter	-160	V
		2SA1659A		-180	
V_{CEO}	Collector-emitter voltage	2SA1659	Open base	-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℃	20	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	2SA1659	I_C=10mA ; I_B=0	-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	μA
I_{EBO}	Emitter cut-off current		V_{EB}=-5V; I_C=0			-1	μA
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

PACKAGE OUTLINE

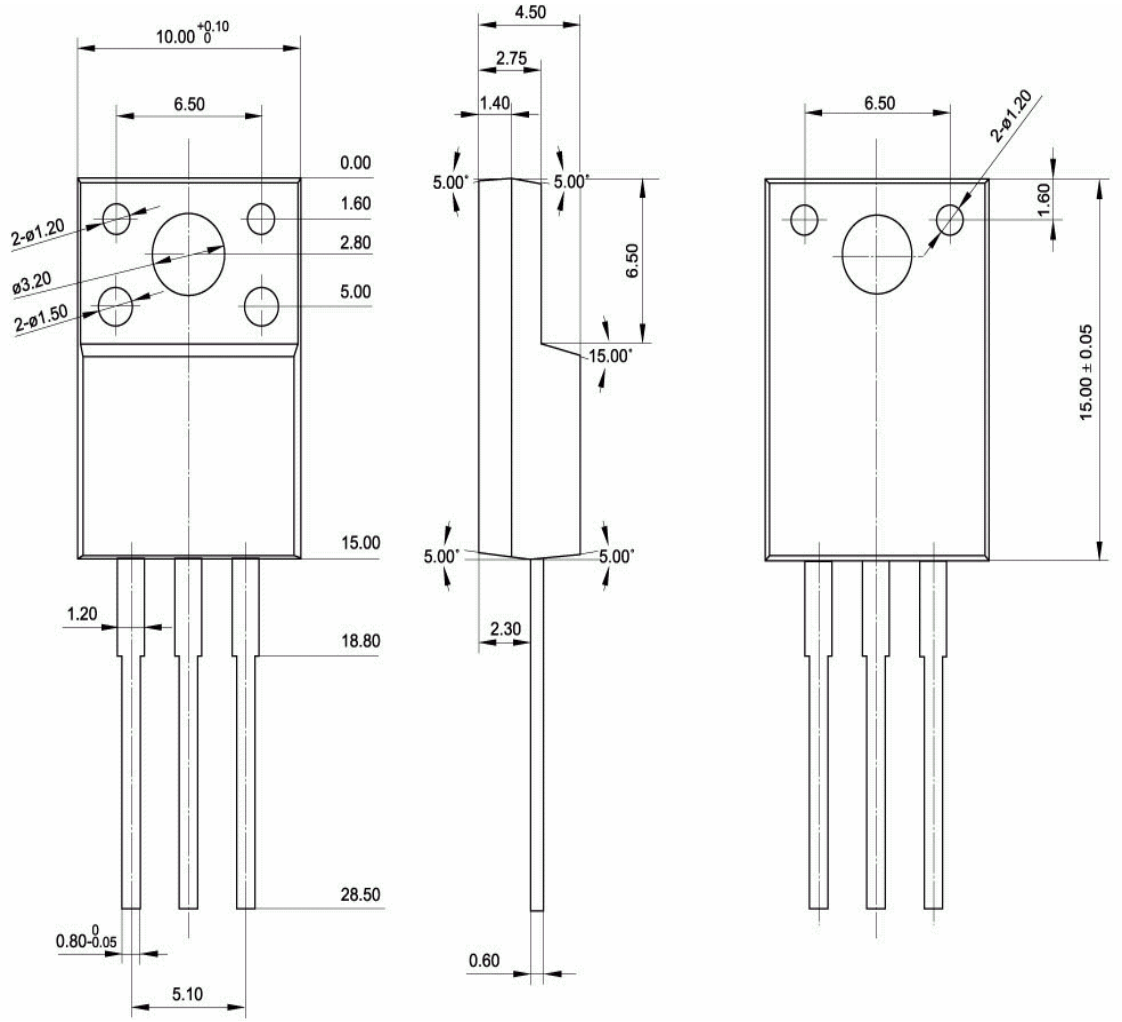

Fig.2 Outline dimensions