

Silicon NPN Power Transistors

2SC3571

DESCRIPTION

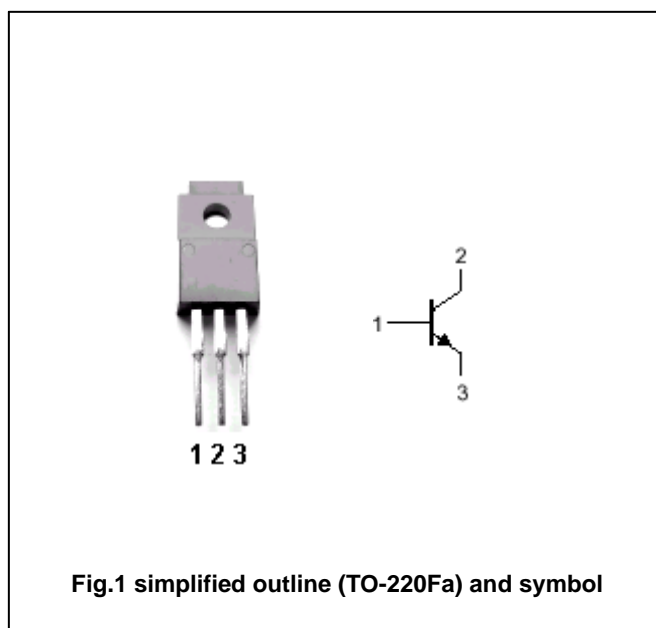
- With TO-220Fa package
- Low collector saturation voltage
- High switching speed

APPLICATIONS

- Switching regulator
- DC-DC converter
- High frequency power amplifier

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current (DC)		7	A
I_{CM}	Collector current-Peak		15	A
I_B	Base current		3.5	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	30	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 _{CE0(SUS)}	Collector-emitter sustaining voltage	I _C =3.0A, I _B =0.6A, L=1mH	400			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =3A; I _B =0.6A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =3A; I _B =0.6A			1.2	V
I _{CBO}	Collector cut-off current	V _{CB} =400V; I _E =0			10	μ A
I _{CEx}	Collector cut-off current	V _{CE} =400V; V _{BE} =-1.5V T _a =125°C			10 1.0	μ A mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	μ A
h _{FE-1}	DC current gain	I _C =0.1A; V _{CE} =5V	20		80	
h _{FE-2}	DC current gain	I _C =1A; V _{CE} =5V	20		80	
h _{FE-3}	DC current gain	I _C =3A; V _{CE} =5V	10			

Switching times

t _{on}	Turn-on time	I _C =3.0A; I _{B1} =-I _{B2} =0.6A V _{CC} ≈150V; R _L =50Ω			1.0	μ s
t _s	Storage time				2.5	μ s
t _f	Fall time				1.0	μ s

◆ h_{FE-2} classifications

M	L	K
20-40	30-60	40-80

PACKAGE OUTLINE

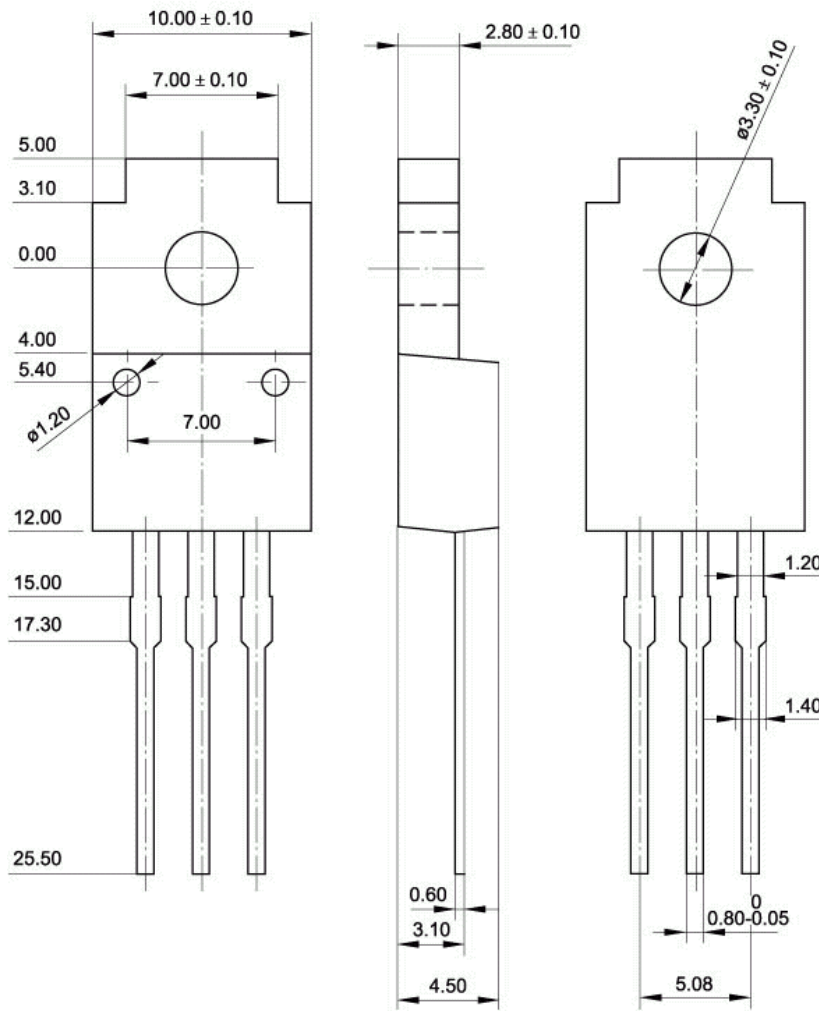


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)