

Silicon NPN Power Transistors

2SC4849

DESCRIPTION

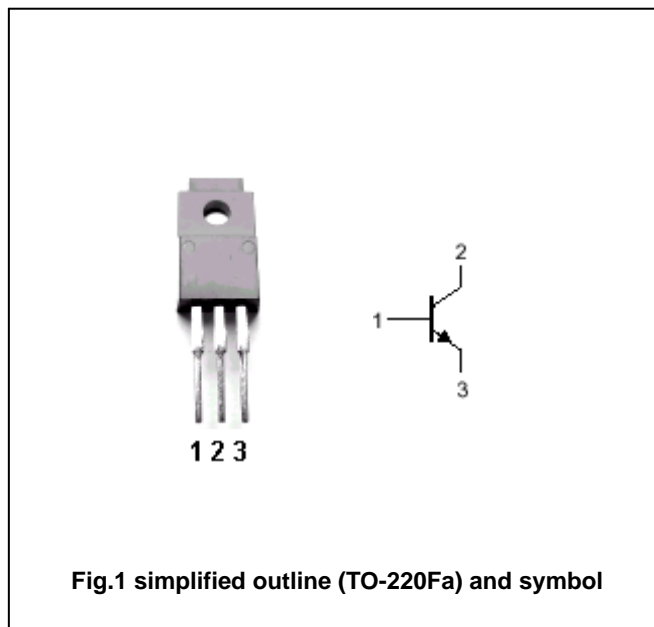
- With TO-220Fa package
- Low collector saturation voltage
- High switching speed
- Wide safe operating area

APPLICATIONS

- For power supply

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	250	V
V_{CEO}	Collector-emitter voltage	Open base	120	V
V_{EBO}	Emitter-base voltage	Open collector	12	V
I_C	Collector current (DC)		7	A
I_{CM}	Collector current-Peak		15	A
P_C	Collector power dissipation	$T_a=25^\circ\text{C}$	2	W
		$T_C=25^\circ\text{C}$	30	
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55~150	°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 =0.1A ; I _B =0	120			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A ; I _B =0.5A			0.6	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A ; I _B =0.5A			1.2	V
I _{CBO}	Collector cut-off current	V _{CB} =100V; I _E =0			10	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =12V; I _C =0			10	μ A
h _{FE}	DC current gain	I _C =3A ; V _{CE} =5V	100		200	
f _T	Transition frequency	I _C =0.5A ; V _{CE} =10V		20		MHz
C _{ob}	Collector output capacitance	f=1MHz ; V _{CB} =10V		150		pF

Switching times

t _{on}	Turn-on time	I _C =5A, I _{B1} =0.5A I _{B2} =-0.5A; V _{CC} ≈50V R _L =10 Ω			0.5	μ s
t _s	Storage time				2.5	μ s
t _f	Fall time				0.5	μ s

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PACKAGE OUTLINE

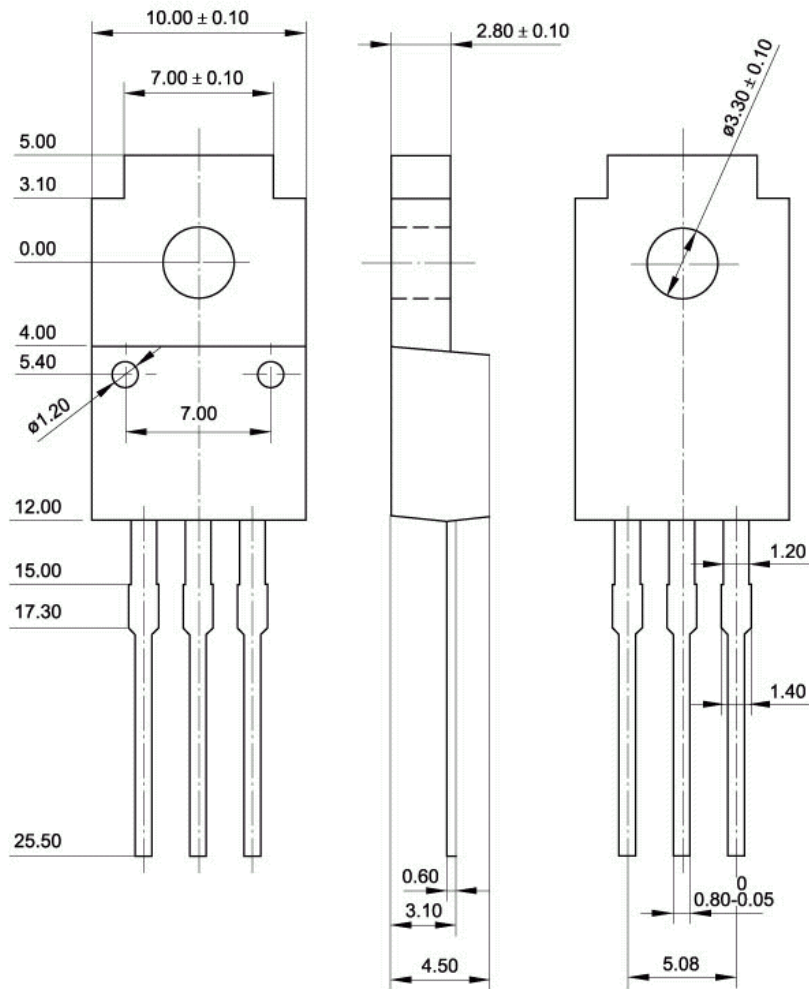


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)