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

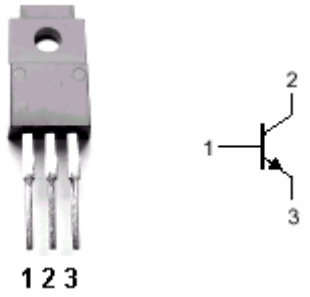

Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25□)

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□	2	W
		T_C=25□	30	
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
$V_{CEO(SUS)}$	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	μA
I_{EBO}	Emitter cut-off current	V_{EB}=12V; I_C=0			10	μA
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=10Ω			0.5	μs
t_s	Storage time				2.5	μs
t_f	Fall time				0.5	μs

PACKAGE OUTLINE

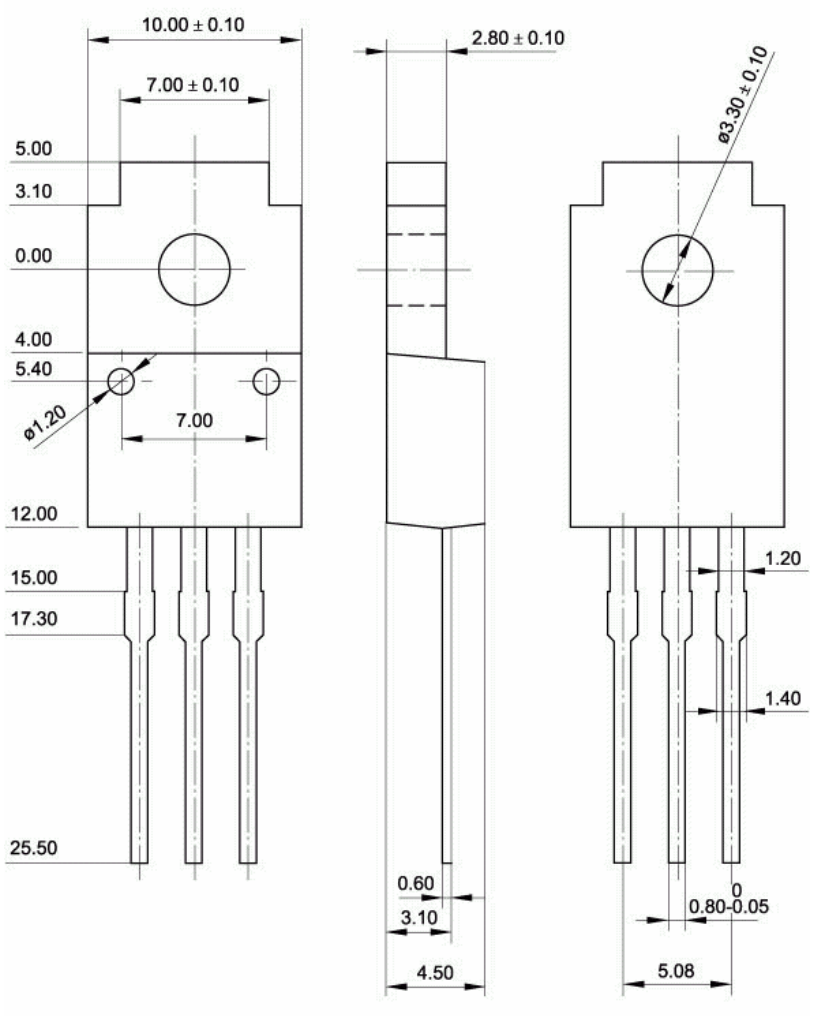

Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)