Silicon NPN Power Transistors 2SD1897

DESCRIPTION

·With TO-220Fa package
·Low collector saturation voltage
·High power dissipation:P_C=30W@T_C=25□

APPLICATIONS

·For low frequency power amplifier,power driver and DC-DC converter applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

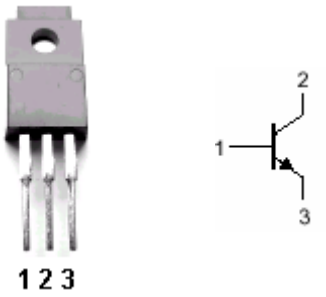

Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		5	A
I_{CM}	Collector current-Peak		10	A
P_C	Collector power dissipation	T_C=25□	30	W
		T_a=25□	2	
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	I_C=1mA , I_B=0	100			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=50μA , I_E=0	100			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=50μA , I_C=0	5			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=3A ;I_B=0.3A			1.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=3A ;I_B=0.3A			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=100V I_E=0			10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			10	μA
h_{FE}	DC current gain	I_C=1A ; V_{CE}=5V	60		320	
f_T	Transition frequency	I_E=-0.5A ; V_{CE}=5V;f=5MHz		8		MHz
C_{ob}	Output capacitance	I_E=0 ; V_{CB}=10V ,f=1MHz		100		pF

◆ **h_{FE} Classifications**

D	E	F
60-120	100-200	160-320

PACKAGE OUTLINE

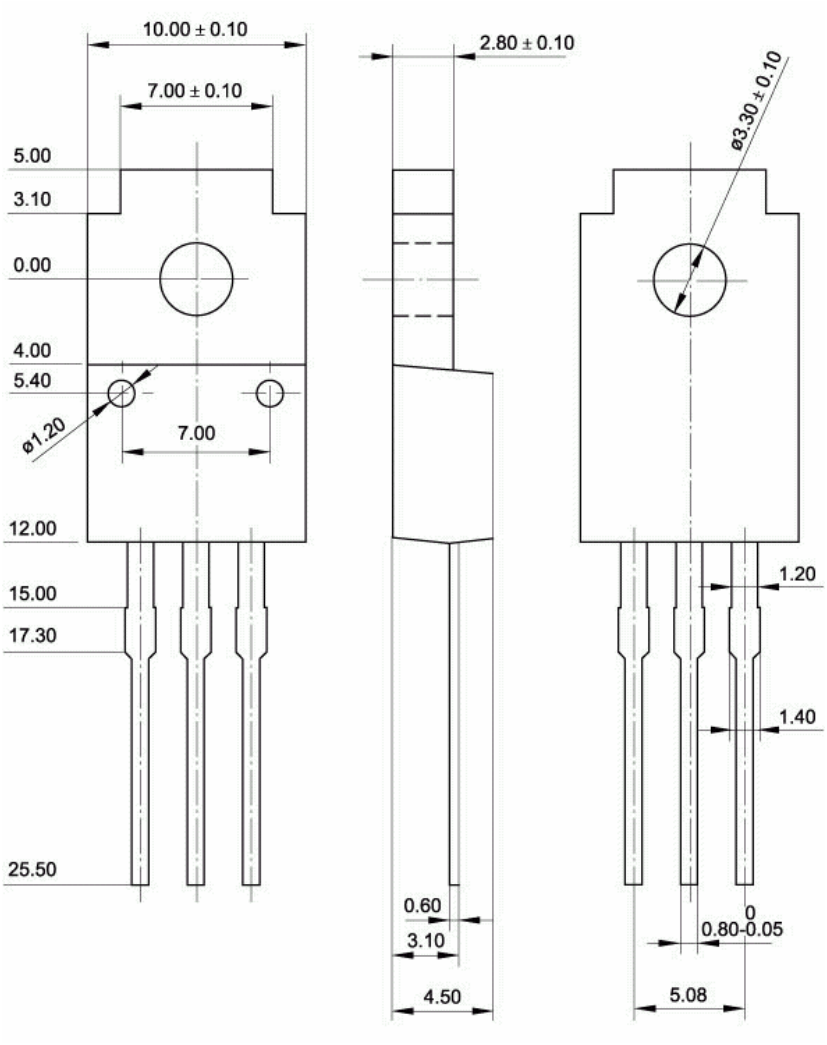

Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)