Silicon NPN Power Transistors 2SD1933

DESCRIPTION

- ·With TO-220Fa package
- ·DARLINGTON
- ·Complement to type 2SB1342
- ·High DC current gain

APPLICATIONS

- ·Low frequency power amplification

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

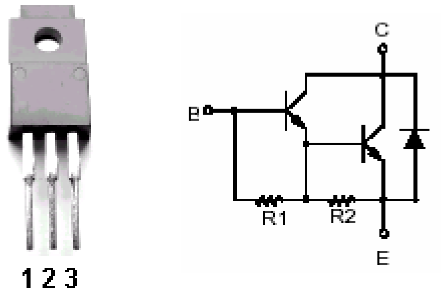

Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	80	V
V_{CEO}	Collector -emitter voltage	Open base	80	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		4	A
I_{CM}	Collector current-peak		6	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	□

CHARACTERISTICS

T_j=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=50μA; I_E=0	80			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=1mA;I_B=0	80			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=2A ;I_B=4mA			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=80V; I_E=0			100	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			3.0	mA
h_{FE}	DC current gain	I_C=2A ; V_{CE}=3V	1000		10000	
f_T	Transition frequency	I_E=-0.2A ; V_{CE}=5V;f=10MHz		40		MHz
C_{OB}	Output capacitance	I_E=0 ; V_{CB}=10V;f=1MHz		35		pF

PACKAGE OUTLINE

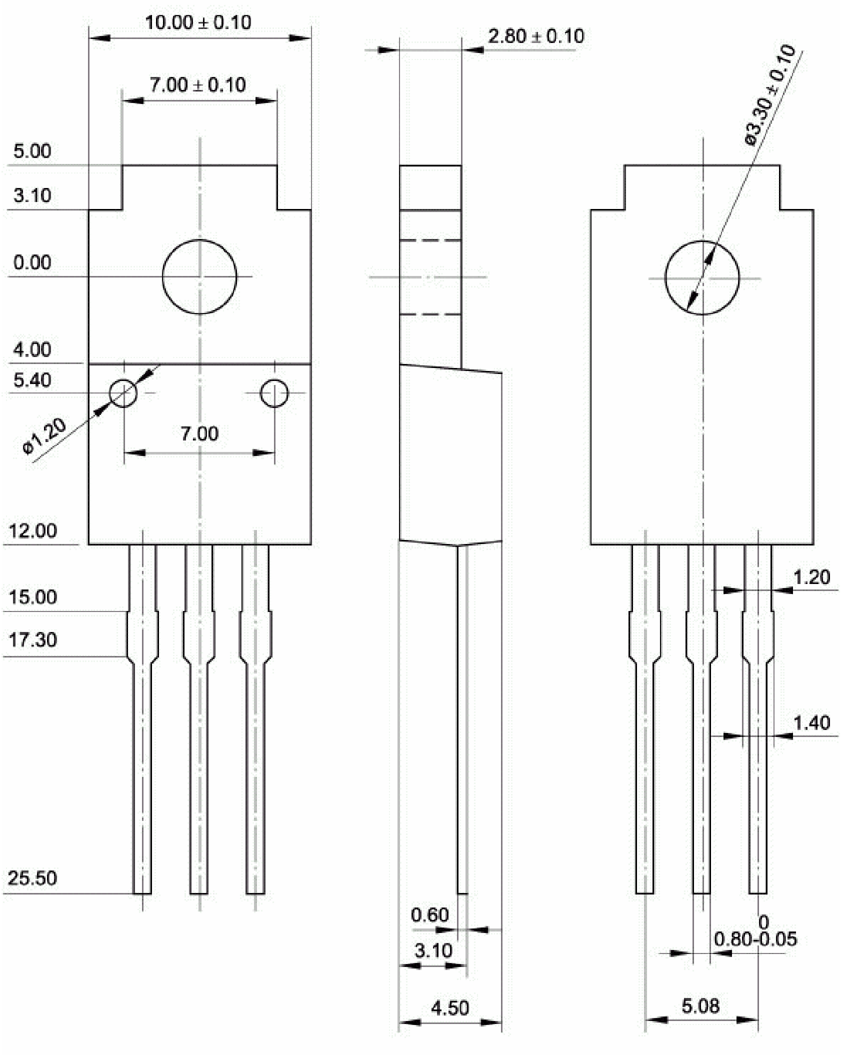

Fig.2 Outline dimensions (unindicated tolerance: ±0.15 mm)