Silicon NPN Power Transistors 2SD1828

DESCRIPTION

·With TO-220F package
·Complement to type 2SB1226
·High DC current gain.
·Large current capacity and wide ASO.
·DARLINGTON

APPLICATIONS

·Motor drivers,printer hammer drivers,relay drivers,voltage regulator control.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

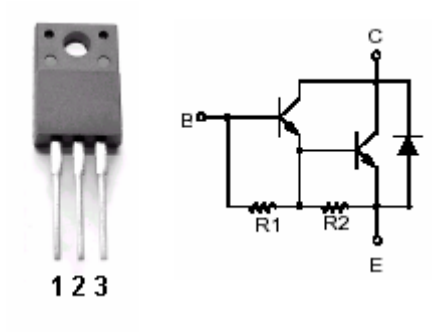

Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	110	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		3	A
I_{CM}	Collector current-peak		5	A
P_C	Collector dissipation	T_C=25□	20	W
			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
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=5mA; I_E=0	110			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=50mA; R_{BE}=∞	100			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=1.5A ; I_B=3mA		0.9	1.5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=1.5A ; I_B=3mA			2.0	V
I_{CBO}	Collector cut-off current	V_{CB}=80V;I_E=0			0.1	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V;I_C=0			3.0	mA
h_{FE}	DC current gain	I_C=1.5A ; V_{CE}=3V	1500	4000		
f_T	Transition frequency	I_C=1.5A ; V_{CE}=5V		20		MHz

Switching times

t_{on}	Turn-on time	I_C=500I_{B1}=-500I_{B2}=1A V_{CC}=50V ,R_L=50Ω		0.8		μs
t_s	Storage time			5.0		μs
t_f	Fall time			1.2		μs

PACKAGE OUTLINE

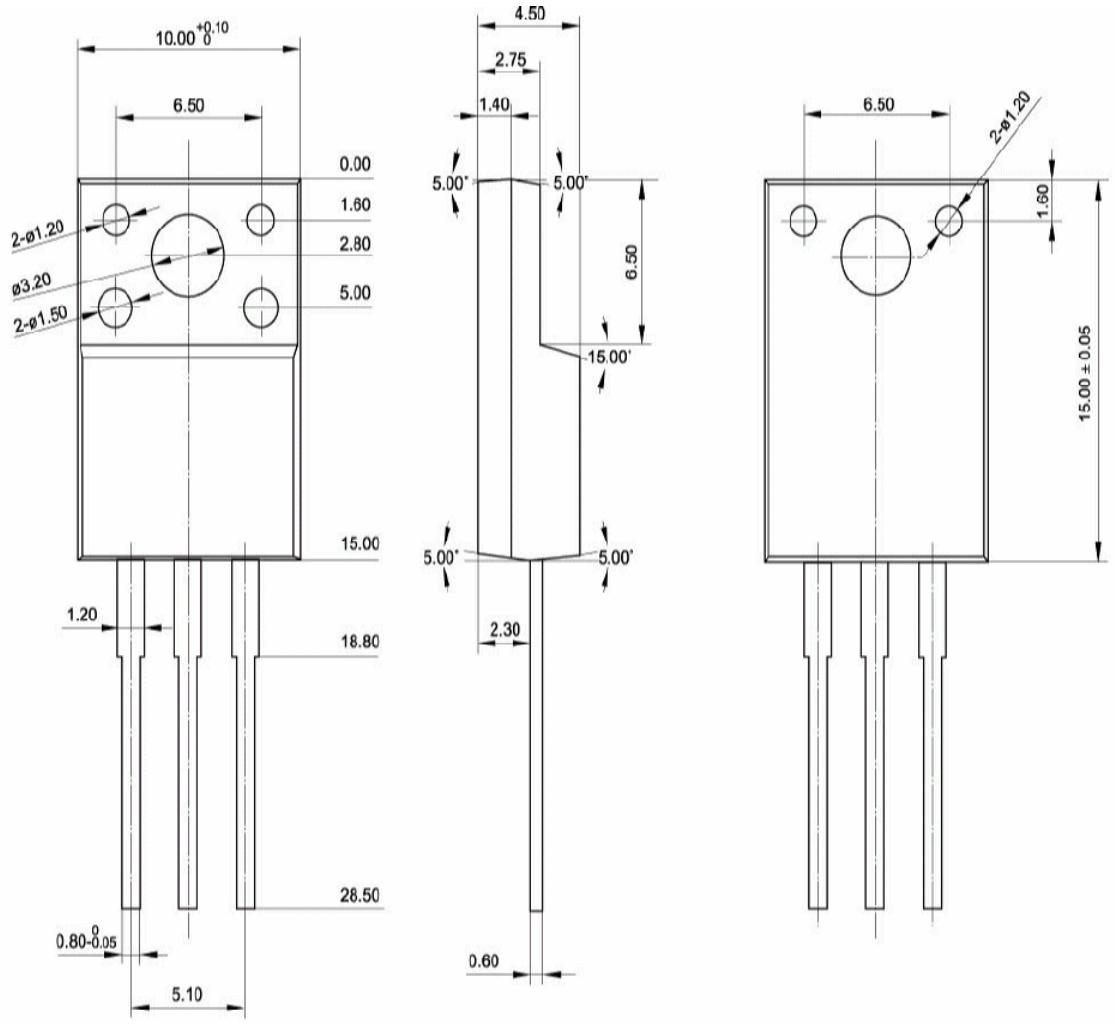

Fig.2 Outline dimensions