Silicon NPN Power Transistors 2SD1827

DESCRIPTION

·With TO-220F package
·Complement to type 2SB1225
·High DC current gain.
·Large current capacity and wide ASO.
·Low saturation voltage.
·DARLINGTON

APPLICATIONS

·Suitable for use in cotrol of motor drivers, printer hammer drivers, relay drivers, and constant-voltage regulators.

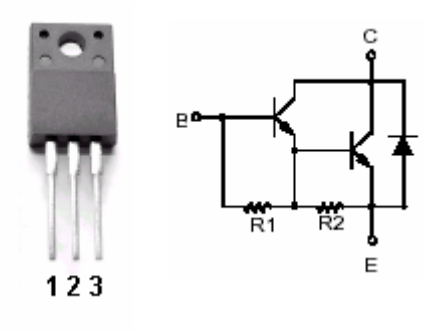

Fig.1 simplified outline (TO-220F) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	70	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		10	A
I_{CM}	Collector current-peak		15	A
P_C	Collector dissipation	T_C=25□	30	W
			2	
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

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	70			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=50mA; R_{BE}=∞	60			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=5A ; I_B=10mA		0.9	1.5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=5A ; I_B=10mA			2.0	V
I_{CBO}	Collector cut-off current	V_{CB}=40V;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=5A ; V_{CE}=2V	2000	5000		

Switching times

t_{on}	Turn-on time	I_C=5A; I_{B1}=0.01A -I_{B2}=0.01A V_{CC}=20V ,R_L=4Ω		0.6		μs
t_s	Storage time			3.0		μs
t_f	Fall time			1.8		μs

PACKAGE OUTLINE

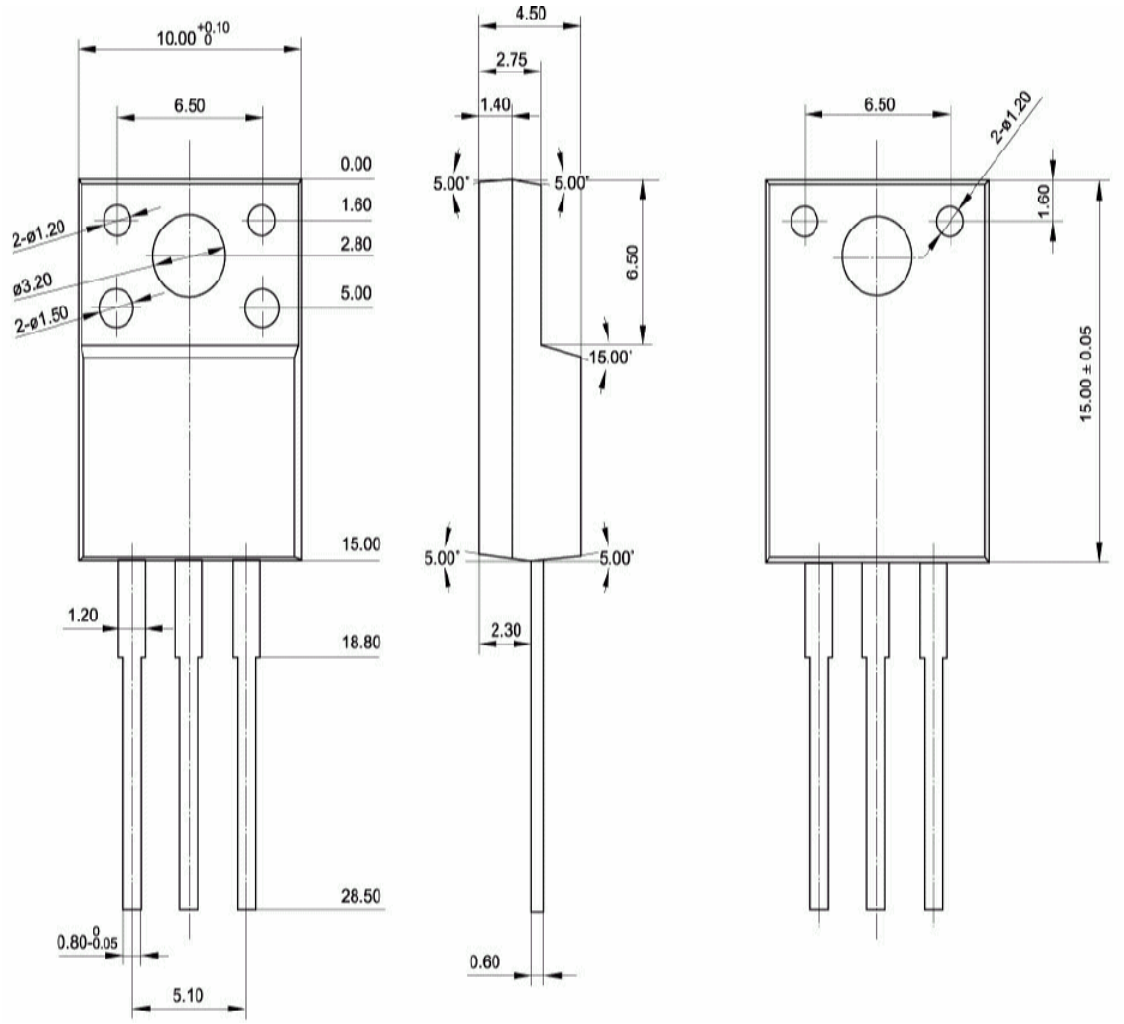

Fig.2 Outline dimensions