Silicon NPN Power Transistors 2SD2014

DESCRIPTION

·With TO-220F package
·DARLINGTON
·Complement to type 2SB1257

APPLICATIONS

·Driver for solenoid,relay and motor, series regulator,and general purpose applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

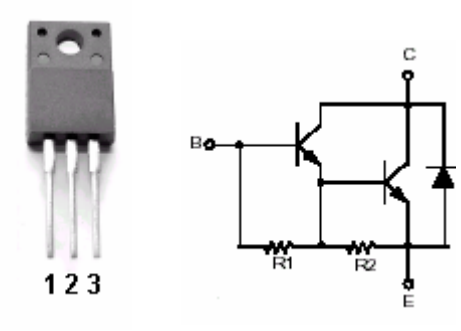

Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	120	V
V_{CEO}	Collector-emitter voltage	Open base	80	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		4	A
I_B	Base current		0.5	A
P_C	Collector dissipation	T_C=25□	25	W
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=10mA ;I_B=0	80			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=3A ;I_B=3mA			1.5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=3A ;I_B=3mA			2.0	V
I_{CBO}	Collector cut-off current	V_{CB}=120V; I_E=0			10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=6V; I_C=0			10	mA
h_{FE}	DC current gain	I_C=3A ; V_{CE}=2V	2000			
f_T	Transition frequency	I_E=-0.1A ; V_{CE}=12V		75		MHz
C_{OB}	Collector output capacitance	f=1MHz;V_{CB}=10V		45		pF
Switching times						
t_{on}	Turn-on time	I_C=3.0A; I_{B1}=-I_{B2}=10mA V_{CC}=30V ,R_L=10Ω		1.0		μs
t_s	Storage time			4.0		μs
t_f	Fall time			1.5		μs

PACKAGE OUTLINE

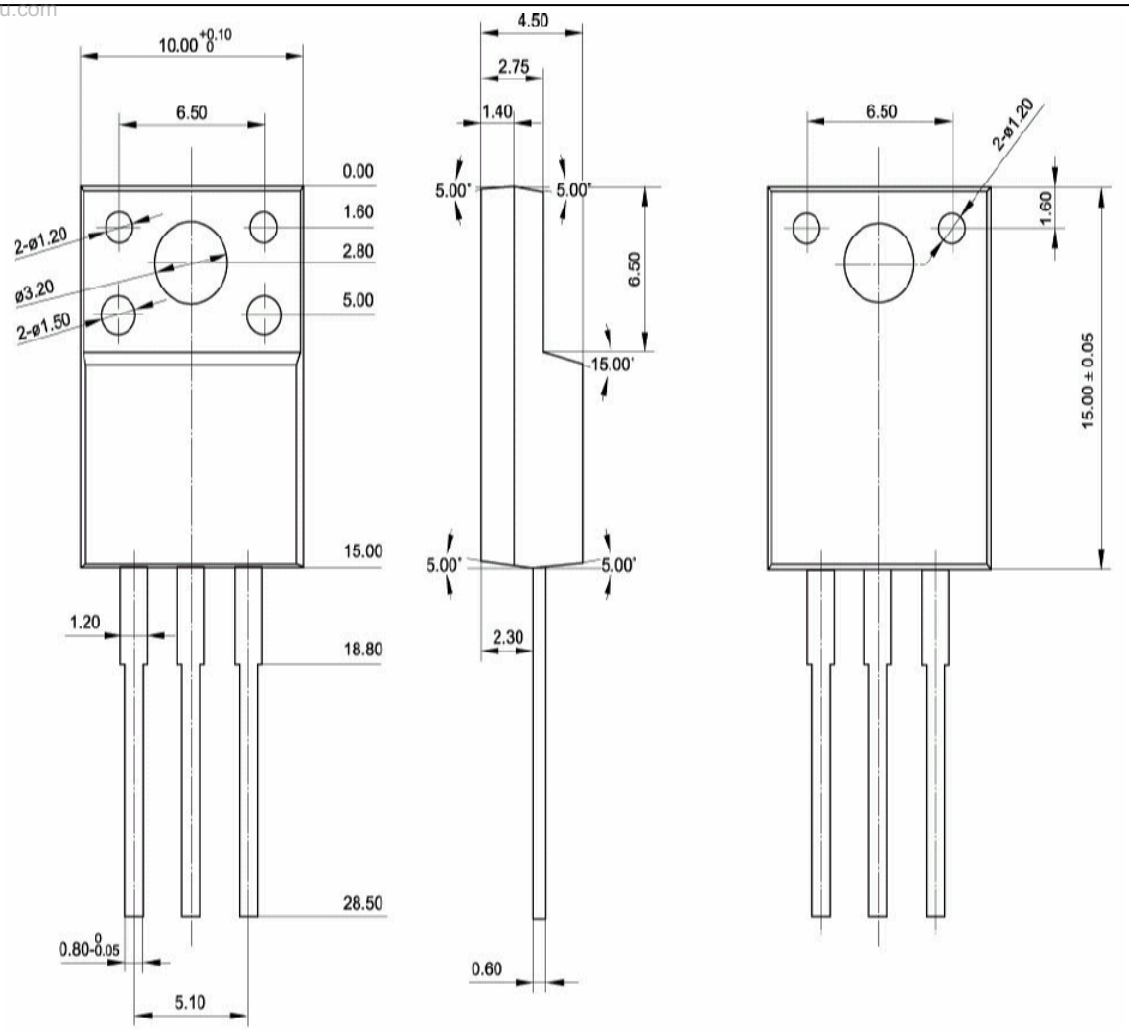

Fig.2 Outline dimensions