

Silicon NPN Power Transistors

2SD2017

DESCRIPTION

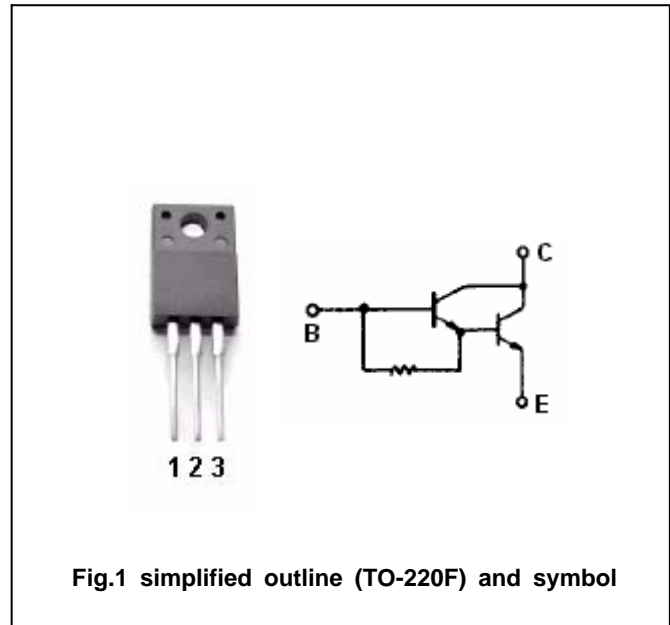
- With TO-220F package
- DARLINGTON

APPLICATIONS

- Driver for solenoid, relay and motor and general purpose applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

**Absolute maximum ratings (Ta=25 °C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	300	V
V_{CEO}	Collector-emitter voltage	Open base	250	V
V_{EBO}	Emitter-base voltage	Open collector	20	V
I_C	Collector current		6	A
I_B	Base current		1	A
P_C	Collector dissipation	$T_C=25$	35	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =25mA ; I _B =0	250			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A ; I _B =2mA			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2A ; I _B =2mA			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =300V; I _E =0			100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =20V; I _C =0			10	mA
h _{FE}	DC current gain	I _C =2A ; V _{CE} =2V	2000			
f _T	Transition frequency	I _E =-1A ; V _{CE} =12V		20		MHz
C _{OB}	Collector output capacitance	f=1MHz; V _{CB} =10V		65		pF

Switching times

t _{on}	Turn-on time	I _C =2.0A ; I _{B1} =5mA; I _{B2} =-10mA V _{CC} =100V , R _L =50		0.6		μs
t _s	Storage time			16.0		μs
t _f	Fall time			3.0		μs

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PACKAGE OUTLINE

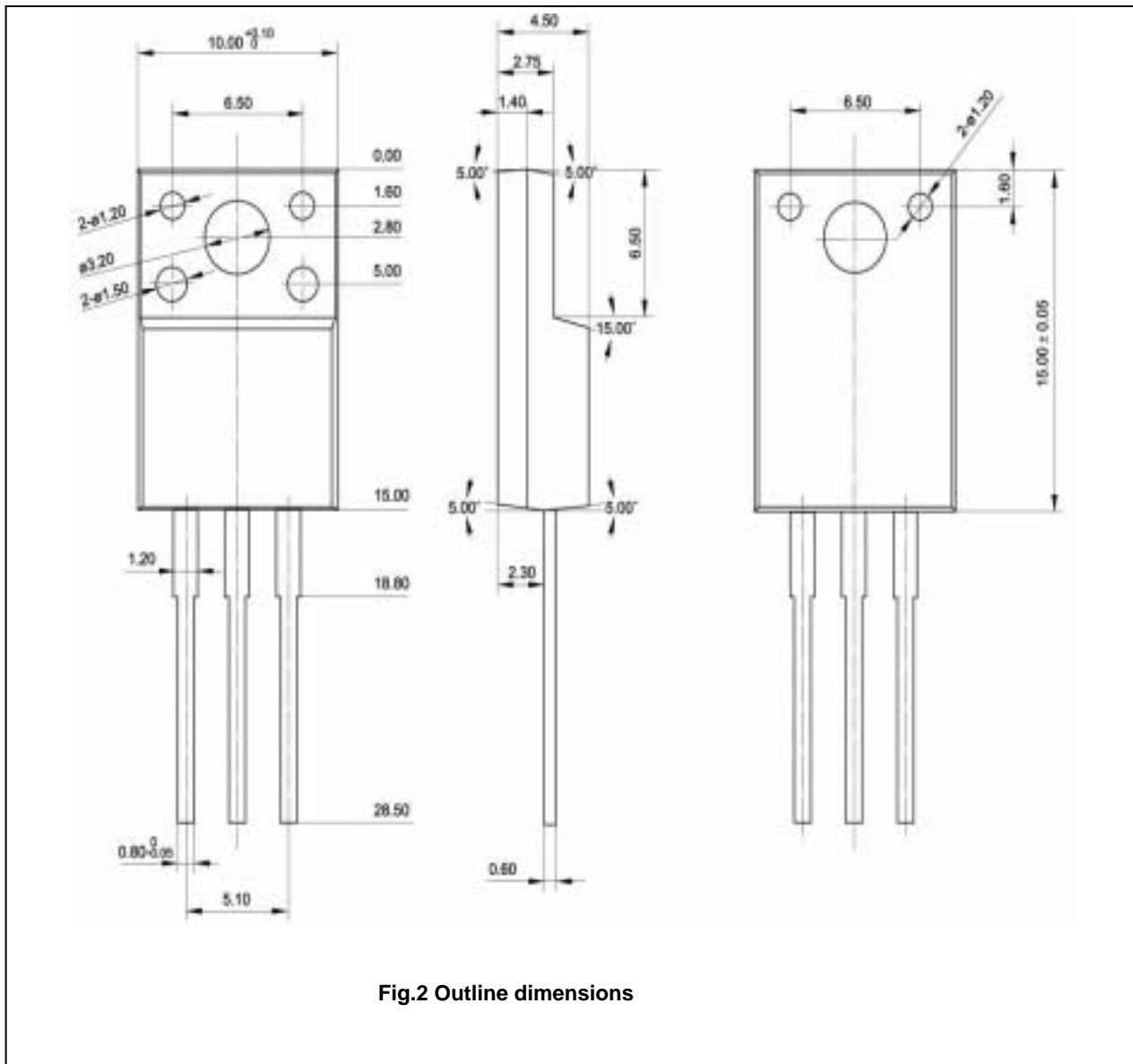


Fig.2 Outline dimensions