

Silicon NPN Power Transistors

2SD2012

DESCRIPTION

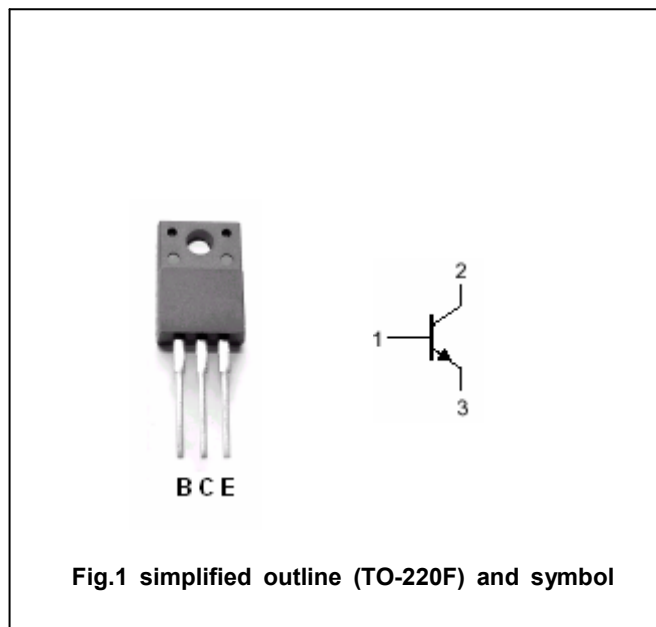
- With TO-220F package
- Complement to type 2SB1366
- Low collector saturation voltage
- Collector power dissipation:
 $P_C=25W(T_C=25^\circ C)$

APPLICATIONS

- Audio frequency power amplifier and general purpose switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings ($T_a=25^\circ C$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	60	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		3	A
I_B	Base current		0.5	A
P_C	Collector dissipation	$T_a=25^\circ C$	2.0	W
		$T_C=25^\circ C$	25	
T_j	Junction temperature		150	$^\circ C$
T_{stg}	Storage temperature		-55~150	$^\circ C$

Silicon NPN Power Transistors

2SD2012

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =50mA ; I _B =0	60			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A ; I _B =0.2A			1.0	V
V _{BE}	Base-emitter on voltage	I _C =0.5A ; V _{CE} =5V			1.0	V
I _{CBO}	Collector cut-off current	V _{CB} =60V ; I _E =0			100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =7V ; I _C =0			100	μA
h _{FE-1}	DC current gain	I _C =0.5A ; V _{CE} =5V	100		320	
h _{FE-2}	DC current gain	I _C =2A ; V _{CE} =5V	20			
f _T	Transition frequency	I _C =1A ; V _{CE} =5V		3		MHz
C _{OB}	Collector output capacitance	f=1MHz ; V _{CB} =10V		35		pF

Silicon NPN Power Transistors

2SD2012

PACKAGE OUTLINE

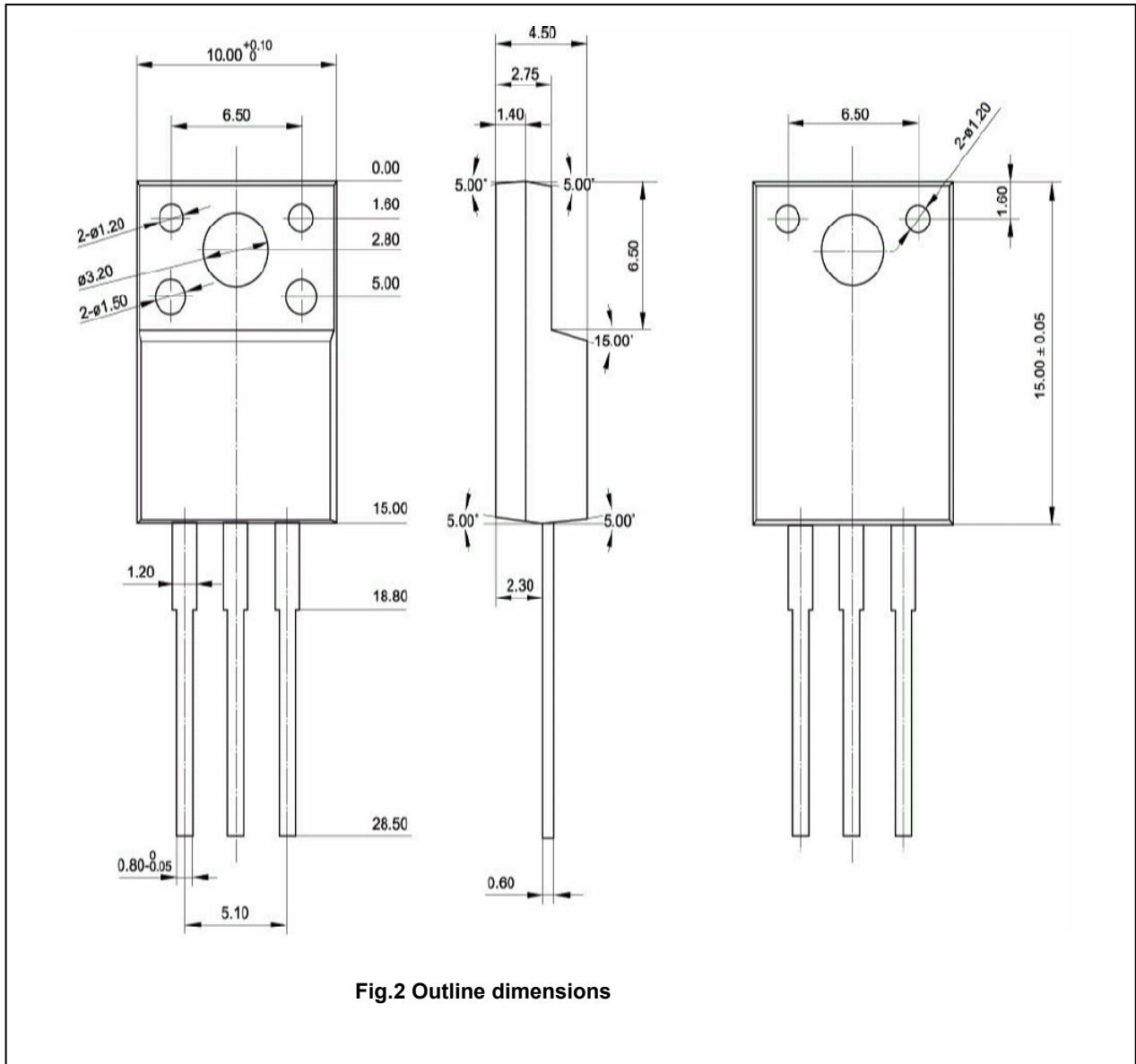


Fig.2 Outline dimensions