

**Silicon PNP Power Transistors**

**2SB1024**

**DESCRIPTION**

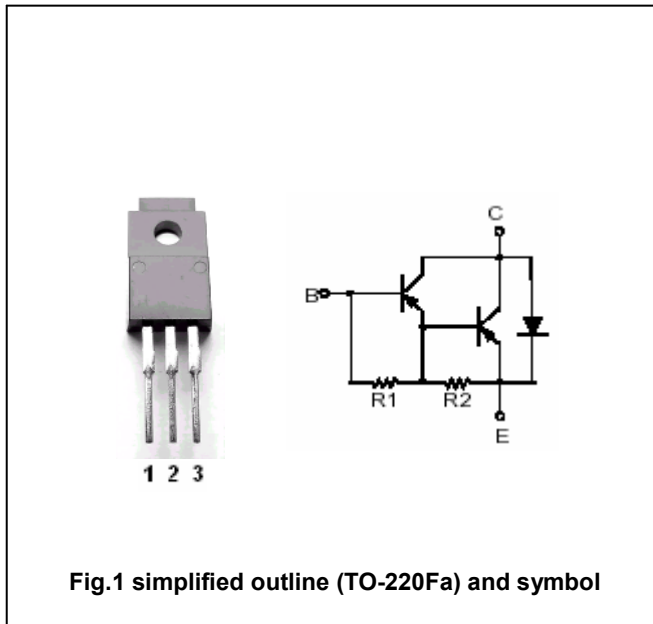
- With TO-220Fa package
- High DC current gain
- Low saturation voltage
- Complement to type 2SD1414

**APPLICATIONS**

- Power amplifier and switching applications
- Hammer drive,pulse motor drive applications

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-100	V
V <sub>CEO</sub>	Collector -emitter voltage	Open base	-80	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-4	A
I <sub>B</sub>	Base current		-0.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	20	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

Tj=25°C 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	$I_C=-3A; I_B=-6mA$			-1.5	V
$V_{BEsat}$	Base-emitter saturation voltage	$I_C=-3A; I_B=-6mA$			-2.0	V
$I_{CBO}$	Collector cut-off current	$V_{CB}=-100V; I_E=0$			-20	$\mu A$
$I_{EBO}$	Emitter cut-off current	$V_{EB}=-5V; I_C=0$			-2.5	mA
$h_{FE-1}$	DC current gain	$I_C=-1A; V_{CE}=-2V$	2000			
$h_{FE-2}$	DC current gain	$I_C=-3A; V_{CE}=-2V$	1000			

## Switching times

$t_{on}$	Turn-on time	$I_{B1}=-I_{B2}=-6mA$ $V_{CC}=-30V, R_L=10\Omega$		0.15		$\mu s$
$t_{stg}$	Storage time			0.80		$\mu s$
$t_f$	Fall time			0.40		$\mu s$

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PACKAGE OUTLINE

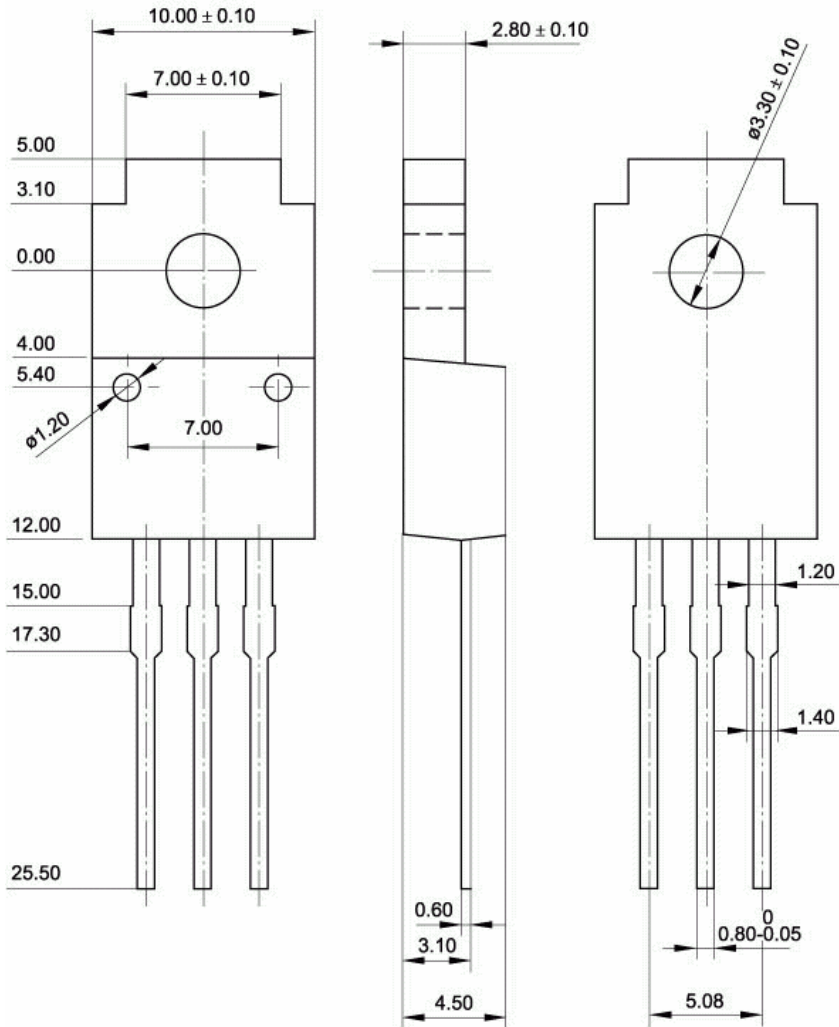


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.15$  mm)