

## Silicon PNP Power Transistors

2SA1078

## DESCRIPTION

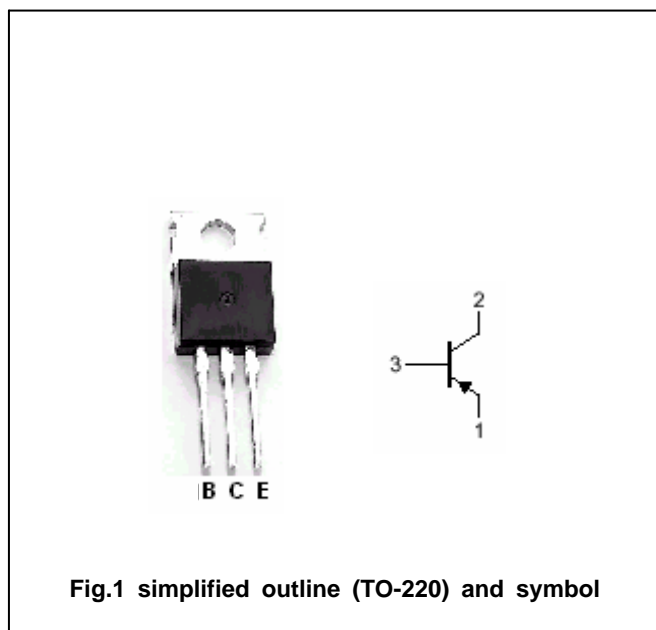
- With TO-220 package
- Complement to type 2SC2528
- High transition frequency
- Excellent safe operating area

## APPLICATIONS

- High-frequency power amplifier
- Audio power amplifiers and drivers

## PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-120	V
$V_{CEO}$	Collector-emitter voltage	Open base	-120	V
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current		-2	A
$P_C$	Collector power dissipation	$T_C=25^\circ\text{C}$	25	W
$T_j$	Junction temperature		150	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-65~150	$^\circ\text{C}$

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-1mA, R <sub>BE</sub> =∞	-120			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-1 μA, I <sub>E</sub> =0	-120			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1 μA, I <sub>C</sub> =0	-5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-0.7A; I <sub>B</sub> =-70mA		-0.45	-1.0	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-0.7A; V <sub>CE</sub> =-5V		-0.8	-1.7	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-120V; I <sub>E</sub> =0			-1	μA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =-120V; I <sub>B</sub> =0			-100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-1	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-0.3A; V <sub>CE</sub> =-5V	60		350	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-0.7A; V <sub>CE</sub> =-5V	50			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-10V; f=10MHz		140		MHz
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =-20V; f=1MHz		100		pF

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PACKAGE OUTLINE



Fig.2 Outline dimensions(unindicated tolerance: ±0.10 mm)