

**Silicon PNP Power Transistors**

**2SA1075 2SA1076**

**DESCRIPTION**

- With MT-200 package
- Complement to type 2SC2525,2SC2526
- Fast switching speed
- Excellent safe operating area

**APPLICATIONS**

- High frequency power amplifiers
- Audio power amplifiers
- Switching regulators
- DC-DC converters

**PINNING(see Fig.2)**

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

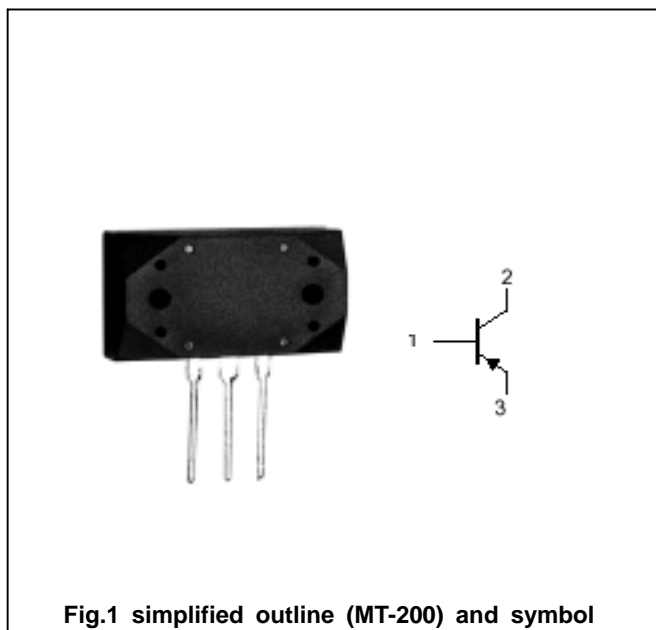


Fig.1 simplified outline (MT-200) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2SA1075	-120	V
		2SA1076	-160	V
V <sub>CEO</sub>	Collector-emitter voltage	2SA1075	-120	V
		2SA1076	-160	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-7	V
I <sub>C</sub>	Collector current		-12	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25	120	W
T <sub>j</sub>	Junction temperature		150	
T <sub>stg</sub>	Storage temperature		-65~150	

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SA1075	I <sub>C</sub> =-1mA ; R <sub>BE</sub> =	-120			V
		2SA1076		-160			
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	2SA1075	I <sub>C</sub> =-50 μ A ; I <sub>E</sub> =0	-120			V
		2SA1076		-160			
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-50 μ A ; I <sub>C</sub> =0	-7			V	
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-5A ; I <sub>B</sub> =-0.5A			-1.8	V	
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =-5A ; V <sub>CE</sub> =-5V			-1.7	V	
I <sub>CBO</sub>	Collector cut-off current	2SA1075	V <sub>CB</sub> =-120V ; I <sub>E</sub> =0			-50	μ A
		2SA1076		V <sub>CB</sub> =-160V ; I <sub>E</sub> =0			
I <sub>CEO</sub>	Collector cut-off current	2SA1075	V <sub>CE</sub> =-120V ; I <sub>B</sub> =0			-1	mA
		2SA1076		V <sub>CE</sub> =-160V ; I <sub>B</sub> =0			
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-7V ; I <sub>C</sub> =0			-50	μ A	
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-5V	60		200		
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-7A ; V <sub>CE</sub> =-5V	40				
C <sub>ob</sub>	Output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =-10V		300		pF	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-10V	45			MHz	

## Switching times

t <sub>r</sub>	Rise time	I <sub>C</sub> =- 7.5A ; R <sub>L</sub> =4 I <sub>B1</sub> =- I <sub>B2</sub> =-0.75A		-0.15		μ s
t <sub>s</sub>	Storage time			-0.50		μ s
t <sub>f</sub>	Fall time			-0.11		μ s

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PACKAGE OUTLINE

