

## 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

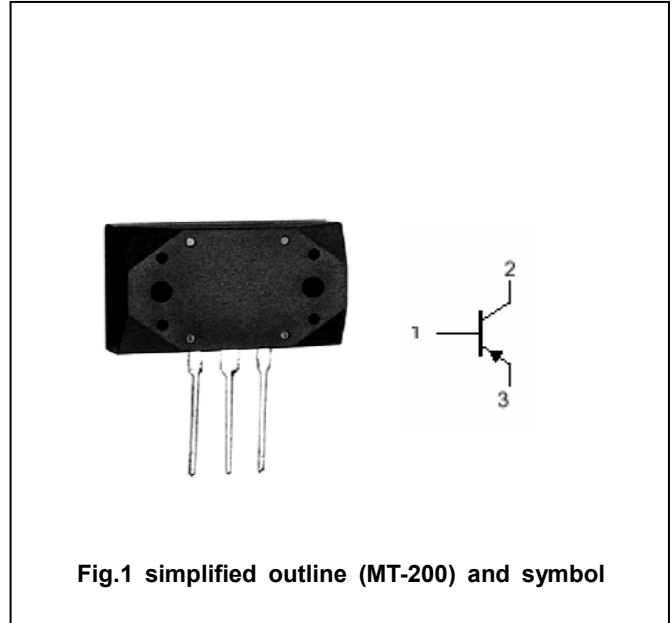


Fig.1 simplified outline (MT-200) and symbol

**Absolute maximum ratings(Ta=25°C)**

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°C	120	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~150	°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	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> =-50μA ; I <sub>E</sub> =0	-120			V
		2SA1076		-160			
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage		I <sub>E</sub> =-50μA ; 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	μA
		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	μA
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		60		MHz

## Switching times

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

PACKAGE OUTLINE

