

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

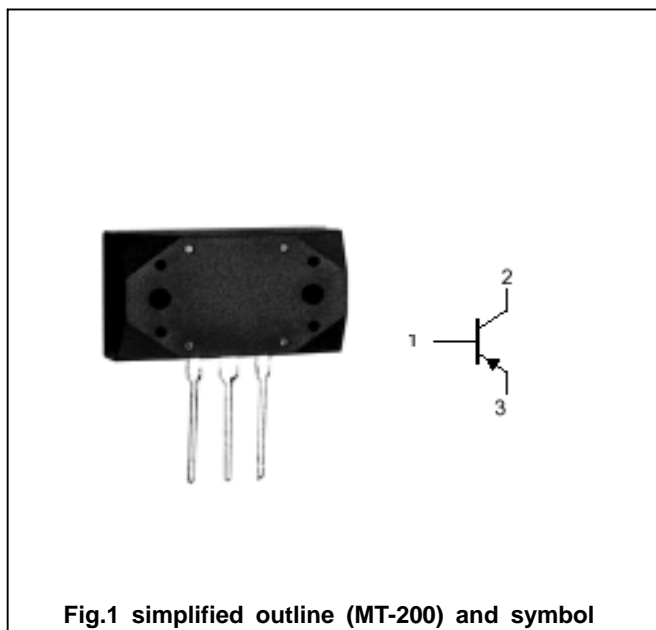


Fig.1 simplified outline (MT-200) and symbol

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SA1075	Open emitter	-120	V
		2SA1076		-160	V
V_{CEO}	Collector-emitter voltage	2SA1075	Open base	-120	V
		2SA1076		-160	V
V_{EBO}	Emitter-base voltage		Open collector	-7	V
I_C	Collector current			-12	A
P_C	Collector power dissipation		$T_C=25$	120	W
T_j	Junction temperature			150	
T_{stg}	Storage temperature			-65~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

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

Switching times

t _r	Rise time	I _C =- 7.5A ; R _L =4 I _{B1} =- I _{B2} =-0.75A		-0.15		μs
t _s	Storage time			-0.50		μs
t _f	Fall time			-0.11		μs

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PACKAGE OUTLINE

