

Silicon PNP Power Transistors

2SA1072 2SA1073

DESCRIPTION

- With TO-3 package
- Complement to type 2SC2522/2523
- Excellent safe operating area
- Fast switching speed

APPLICATIONS

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

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

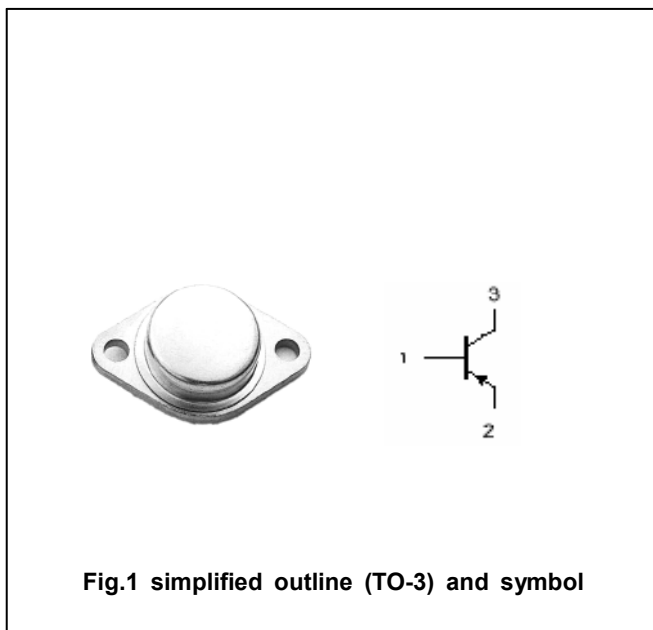


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SA1072	-120	V
		2SA1073	-160	
V _{CEO}	Collector-emitter voltage	2SA1072	-120	V
		2SA1073	-160	
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 °C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SA1072	I _C =-1mA ; R _{BE} =∞	-120			V
		2SA1073		-160			
V _{(BR)CBO}	Collector-base breakdown voltage	2SA1072	I _C =-50μA ; I _E =0	-120			V
		2SA1073		-160			
V _{(BR)EBO}	Emitter-base breakdown voltage		I _E =-50μA ; I _C =0	-7			V
V _{CEsat}	Collector-emitter saturation voltage		I _C =-5A ; I _B =-0.5A		-0.9	-1.8	V
V _{BE}	Base-emitter on voltage		I _C =-5A ; V _{CE} =-5V		-1.25	-1.7	V
I _{CBO}	Collector cut-off current	2SA1072	V _{CB} =-120V ; I _E =0			-50	μA
		2SA1073	V _{CB} =-160V ; I _E =0				
I _{CEO}	Collector cut-off current	2SA1072	V _{CE} =-120V ; R _{BE} =∞			-1	mA
		2SA1073	V _{CE} =-160V ; R _{BE} =∞				
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 ; f=1MHz		300		pF
f _T	Transition frequency		I _C =-1A ; V _{CE} =-10V ; f=10MHz		60		MHz

Switching times

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

