

**Silicon PNP Power Transistors**

**2SA980/981/982**

**DESCRIPTION**

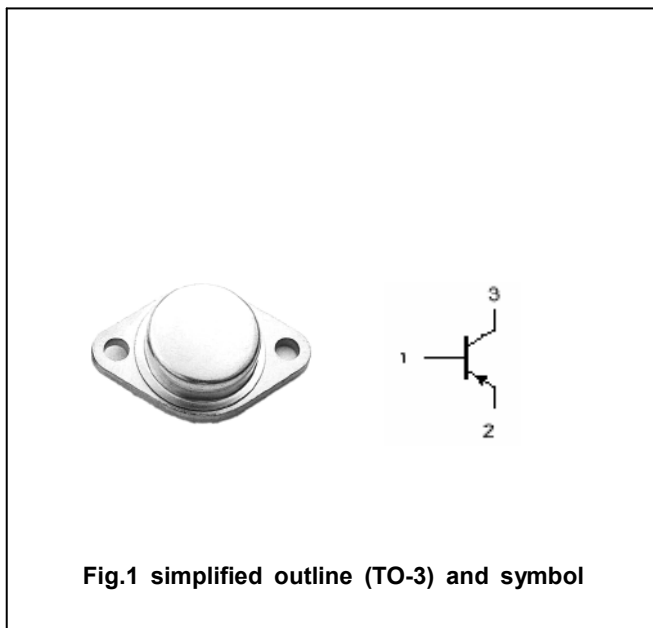
- With TO-3 package
- Complement to type 2SC2260/2261/2262

**APPLICATIONS**

- For power switching and general purpose applications

**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 <sub>CBO</sub>	Collector-base voltage	2SA980	-100	V
		2SA981	-120	
		2SA982	-140	
V <sub>CEO</sub>	Collector-emitter voltage	2SA980	-100	V
		2SA981	-120	
		2SA982	-140	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-6	V
I <sub>C</sub>	Collector current		-8	A
I <sub>B</sub>	Base current		-3	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25□	80	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 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SA980	-100			V
		2SA981	-120			
		2SA982	-140			
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.3A			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	2SA980				mA
		2SA981			-0.1	
		2SA982			-0.1	
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-6V; I <sub>C</sub> =0			-0.1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-3A; V <sub>CE</sub> =-4V	30			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-12V		20		MHz

## Switching times

t <sub>r</sub>	Rise time			0.85		μs
t <sub>s</sub>	Storage time	I <sub>C</sub> =-3A; R <sub>L</sub> =4Ω I <sub>B1</sub> =-0.2A; I <sub>B2</sub> =0.1A V <sub>CC</sub> =-12V		2.0		μs
t <sub>f</sub>	Fall time			0.3		μs

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PACKAGE OUTLINE



Fig.2 outline dimensions (unindicated tolerance:±0.1mm)