

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

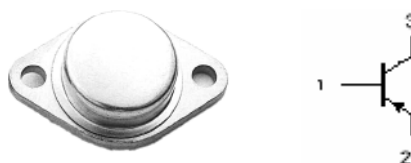


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SA980	Open emitter	-100	V
		2SA981		-120	
		2SA982		-140	
V_{CEO}	Collector-emitter voltage	2SA980	Open base	-100	V
		2SA981		-120	
		2SA982		-140	
V_{EBO}	Emitter-base voltage		Open collector	-6	V
I_C	Collector current			-8	A
I_B	Base current			-3	A
P_C	Collector power dissipation		$T_C = 25 \square$	80	W
T_j	Junction temperature			150	$\square$
T_{stg}	Storage temperature			-65~150	$\square$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	2SA980	$I_C = -50\text{mA}$; $I_B = 0$	-100			V
		2SA981		-120			
		2SA982		-140			
V_{CEsat}	Collector-emitter saturation voltage		$I_C = -3\text{A}$; $I_B = -0.3\text{A}$			-1.5	V
I_{CBO}	Collector cut-off current	2SA980	$V_{CB} = -100\text{V}$; $I_E = 0$			-0.1	mA
		2SA981	$V_{CB} = -120\text{V}$; $I_E = 0$				
		2SA982	$V_{CB} = -140\text{V}$; $I_E = 0$				
I_{EBO}	Emitter cut-off current		$V_{EB} = -6\text{V}$; $I_C = 0$			-0.1	mA
h_{FE}	DC current gain		$I_C = -3\text{A}$; $V_{CE} = -4\text{V}$	30			
f_T	Transition frequency		$I_C = -0.5\text{A}$; $V_{CE} = -12\text{V}$		20		MHz

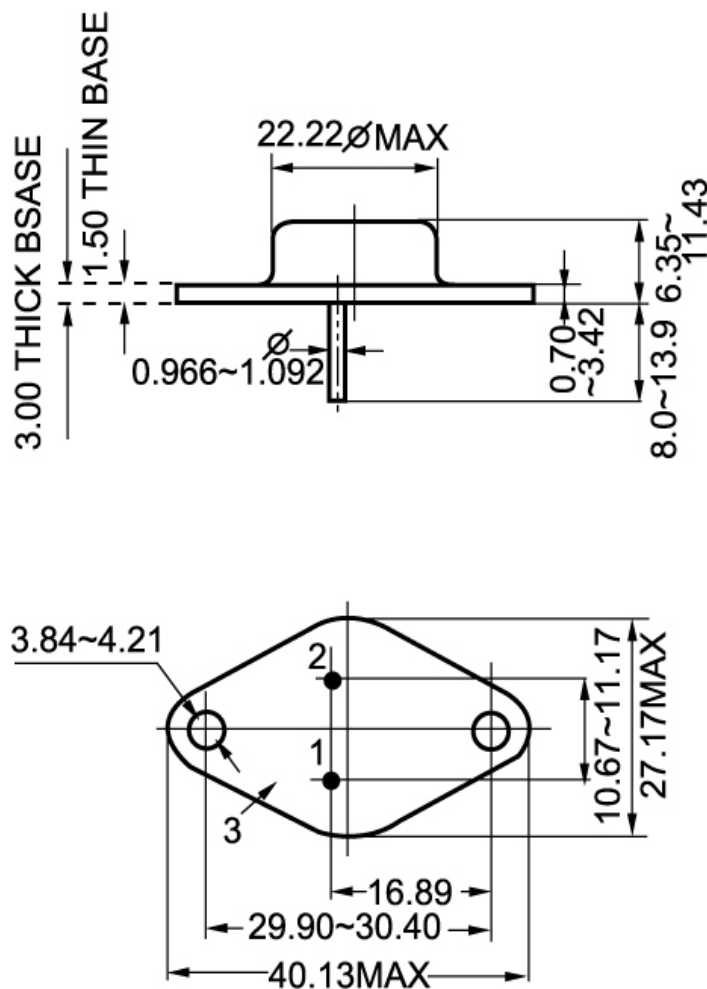
Switching times

t_r	Rise time	$I_C = -3\text{A}$; $R_L = 4\Omega$ $I_{B1} = -0.2\text{A}$; $I_{B2} = 0.1\text{A}$ $V_{CC} = -12\text{V}$		0.85		μs
t_s	Storage time			2.0		μs
t_f	Fall time			0.3		μs

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PACKAGE OUTLINE

Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)