

Silicon PNP Power Transistors

2SA744/745/745A

DESCRIPTION

- With TO-3 package
- Complement to type 2SC1402/1403/1403A

APPLICATIONS

- For power switching and general purpose applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

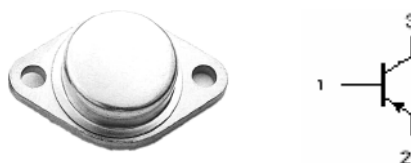


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SA744	Open emitter	-80	V
		2SA745		-100	
		2SA745A		-120	
V_{CEO}	Collector-emitter voltage	2SA744	Open base	-80	V
		2SA745		-100	
		2SA745A		-120	
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		$T_C = 25 \square$	70	W
T_j	Junction temperature			150	$\square$
T_{stg}	Storage temperature			-65~150	$\square$

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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	2SA744	I _C =-50mA ; I _B =0	-80			V
		2SA745		-100			
		2SA745A		-120			
V _{CEsat}	Collector-emitter saturation voltage		I _C =-3A; I _B =-0.3A			-1.5	V
I _{CBO}	Collector cut-off current	2SA744	V _{CB} =-80V; I _E =0			-1.0	mA
		2SA745	V _{CB} =-100V; I _E =0				
		2SA745A	V _{CB} =-120V; I _E =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-6V; I _C =0			-1.0	mA
h _{FE}	DC current gain		I _C =-3A ; V _{CE} =-4V	30			
f _T	Transition frequency		I _C =-0.5A ; V _{CE} =-12V		15		MHz

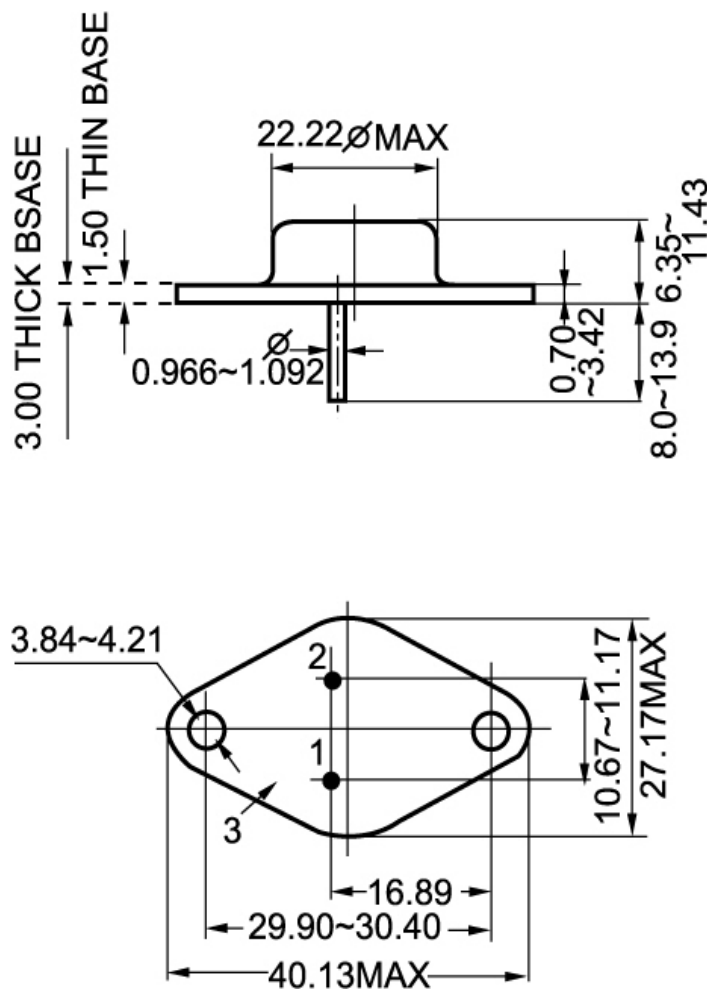
Switching times

t _r	Rise time	I _C =-3A; R _L =4Ω I _{B1} =-0.2A; I _{B2} =0.1A V _{CC} =-12V		1.2		μs
t _s	Storage time			2.0		μs
t _f	Fall time			0.55		μs

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PACKAGE OUTLINE

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