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(Ta=℃)

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℃	70	W
T_j	Junction temperature			150	℃
T_{stg}	Storage temperature			-65~150	℃

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CHARACTERISTICS

Tj=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

PACKAGE OUTLINE

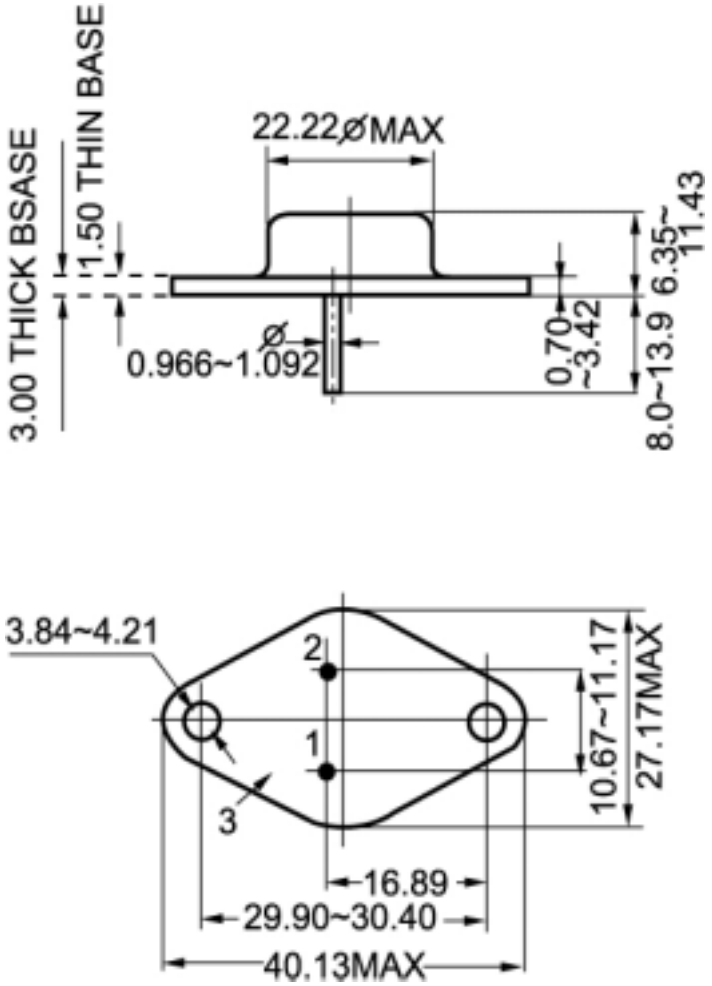

Fig.2 outline dimensions (unindicated tolerance:±0.1mm)