

Silicon NPN Power Transistors

2SD424

DESCRIPTION

- With TO-3 package
- Complement to type 2SB554
- High power dissipation
- High collector-emitter breakdown voltage
- $V_{CEO}=180V(\text{min})$

APPLICATIONS

- Power amplifier applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

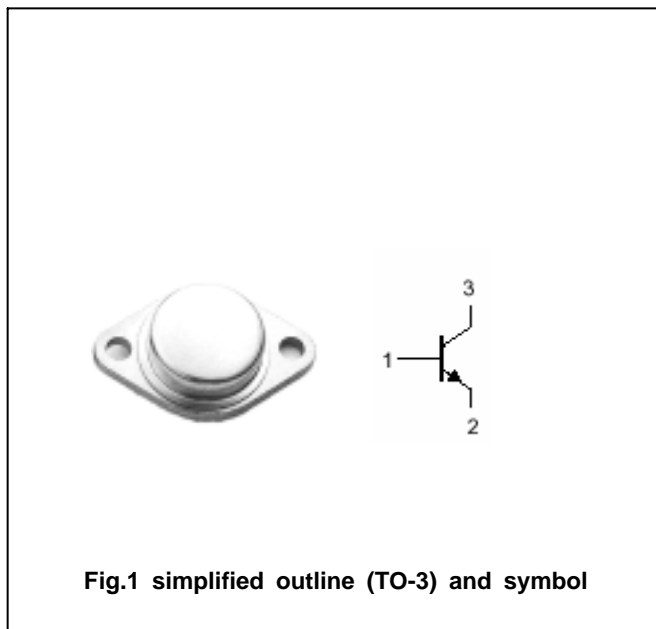


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	180	V
V_{CEO}	Collector-emitter voltage	Open base	180	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		15	A
I_B	Base current		1.5	A
P_C	Collector power dissipation	$T_C=25$	150	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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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	I _C =0.1A ; I _B =0	180			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10mA ; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =10A; I _B =1A			3.0	V
V _{BE}	Base-emitter on voltage	I _C =10A ; V _{CE} =5V			2.5	V
I _{CBO}	Collector cut-off current	V _{CB} =90V; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			0.1	mA
h _{FE}	DC current gain	I _C =2A ; V _{CE} =5V	40		140	
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V; f=1.0MHz		300		pF
f _T	Transition frequency	I _C =2A ; V _{CE} =5V		5		MHz

◆ h_{FE} Classifications

R	O
40-80	70-140

PACKAGE OUTLINE

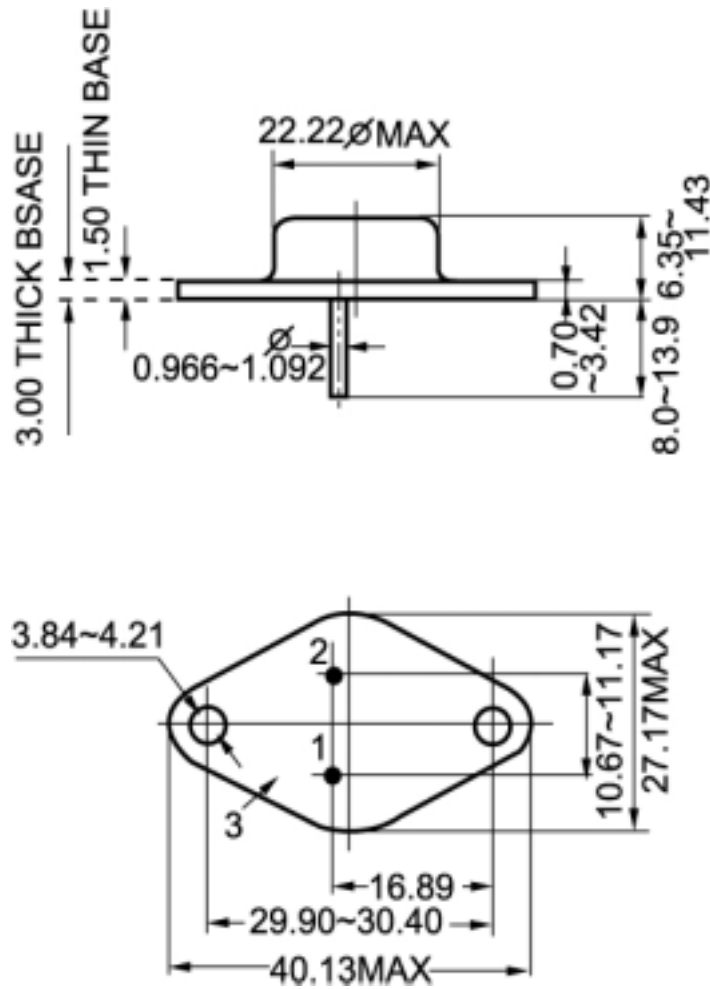


Fig.2 outline dimensions (unindicated tolerance: ± 0.1 mm)