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(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

Tj=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

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PACKAGE OUTLINE

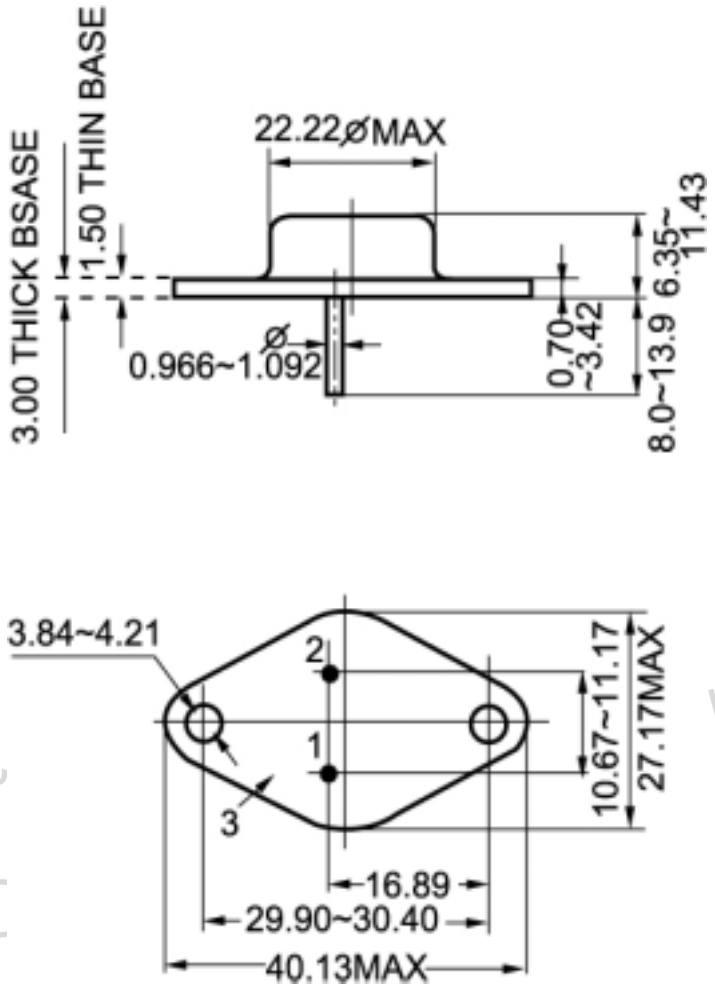

Fig.2 outline dimensions (unindicated tolerance:±0.1mm)