

2SA1162

Silicon PNP Epitaxial Type Transistor

Features

- High voltage and high current: $V_{CEO} = -50\text{ V}$, $I_C = 150\text{ mA}$ (max)
- Low noise: $NF = 1\text{ dB}$ (typ.), 10 dB (max)
- Small package
- RoHS compliant package

Mechanical Data

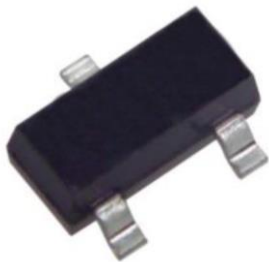
- Case: SOT-23

Molded plastic

- Epoxy: UL94-V0 rate flame retardant

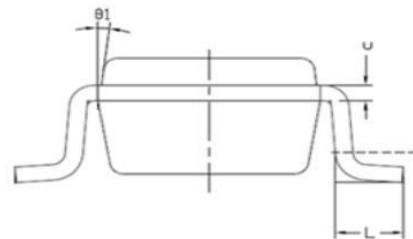
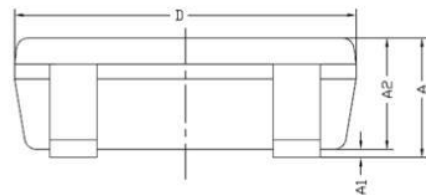
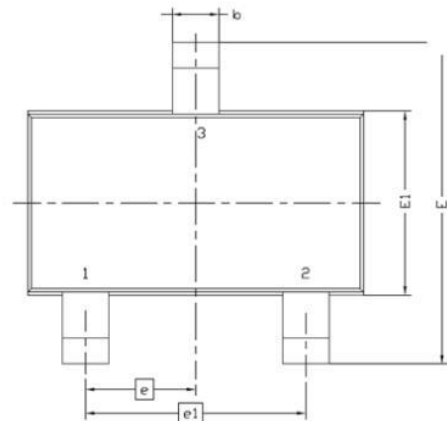
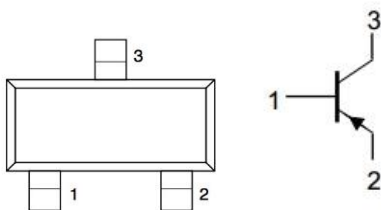
Packing & Order Information

3,000/Reel



**RoHS
COMPLIANT**

Graphic symbol



Symbol	MILLIMETERS	
	MIN	MAX
A	0.8	1.2
A1	0	0.1
A2	0.7	1.1
b	0.3	0.5
c	0.1	0.2
D	2.7	3.1
E	2.6	3
E1	1.4	1.8
e	0.95 BSC	
e1	1.9 BSC	
L	0.3	0.6
θ1	7° NOM	

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

ABSOLUTE MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-50	V
V _{CEO}	Collector-Emitter Voltage	-50	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-150	mA
I _B	Base Current	-30	mA
P _C	Collector Dissipation	150	mW
T _j	Junction Temperature	125	°C
T _{stg}	Storage Temperature Range	-55 to +125	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	MIN	TYP	MAX	UNIT
I _{CB0}	Collector cut-off current	V _{CB} = -50 V, I _E = 0			-0.1	μA
I _{EBO}	Emitter cut-off current	V _{EB} = -5 V, I _C = 0			-0.1	μA
h _{FE}	DC current gain	V _{CE} = -6 V, I _C = -2 mA	70		400	
V _{CE(sat)}	Collector-emitter saturation voltage	I _C = -100mA, I _B = -10mA		-0.1	-0.3	V
f _r	Transition frequency	V _{CE} = -10 V, I _C = -1 mA	80			MHz
C _{ob}	Collector output capacitance	V _{CB} = -10 V, I _E = 0 f = 1.0MHz		4	7	pF
NF	Noise figure	V _{CE} = -6 V, I _C = -0.1 mA f = 1.0KHz, R _g = 10kΩ		1.0	10	dB

*Pulse test: t_p ≤ 300μs, δ ≤ 0.02.

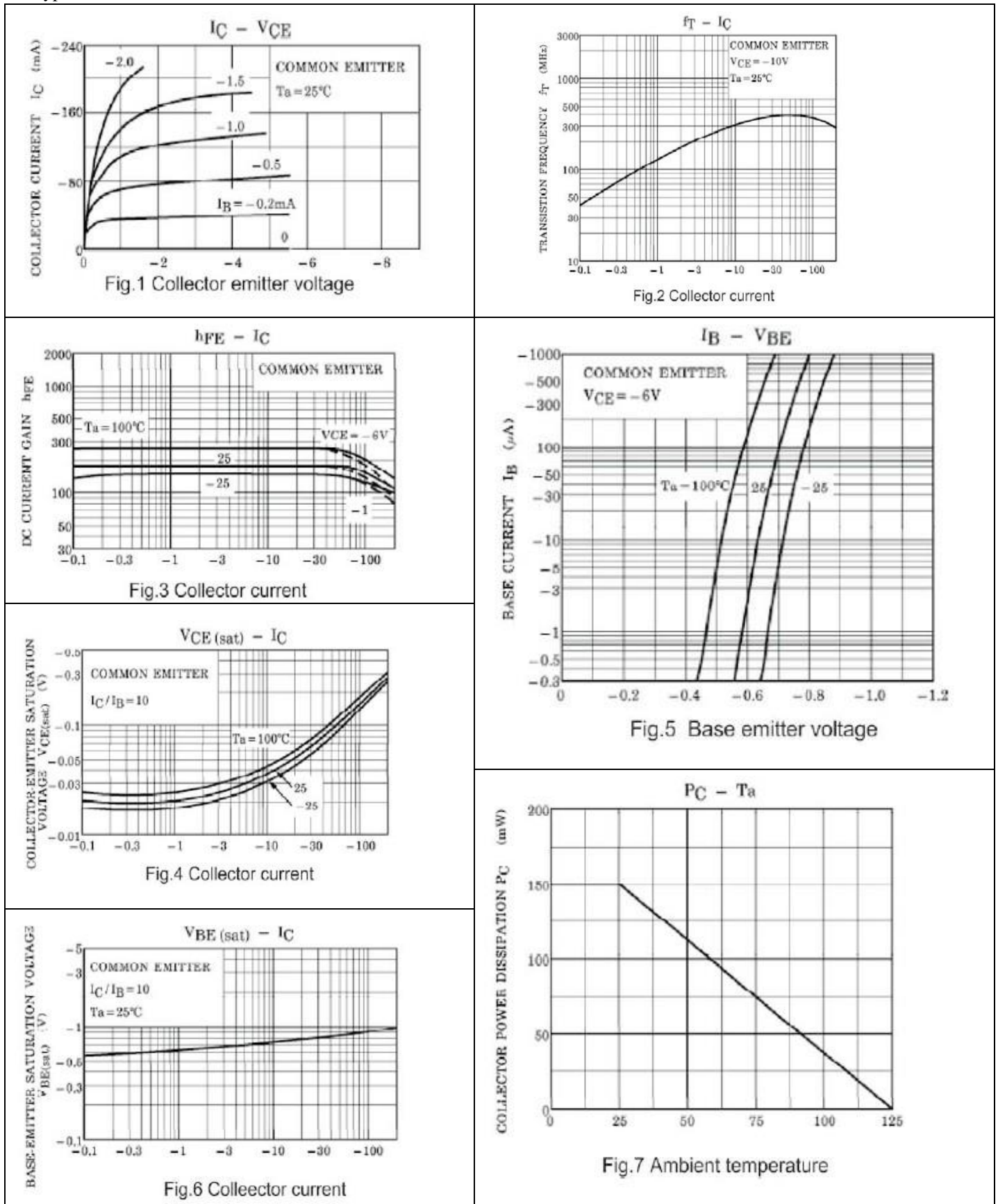
h_{FE} CLASSIFICATION

Marking	SO	SY	SR
Rank	O	Y	GR
Range	70-140	120~240	200-400

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Typical Characteristics



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