

H8550

General Purpose Transistors PNP Silicon

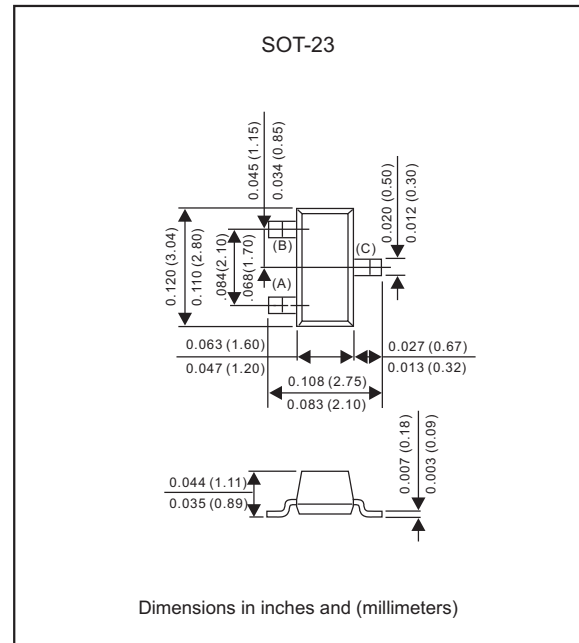
Features

- High current capacity in compact package $I_c = -0.8A$.
- Epitaxial planar type
- Pb-free package is available
- Suffix "-H" indicates Halogen free parts, ex. H8550P.

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, SOT-23
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any
- Weight : Approximated 0.008 gram

Package outline



Maximum ratings (AT $T_A = 25^\circ C$ unless otherwise noted)

PARAMETER	Symbol	Value	UNIT
Collector-base voltage	V_{CBO}	-40	V
Collector-emitter voltage	V_{CEO}	-25	V
Emitter-base voltage	V_{EBO}	-5.0	V
Collector current-continuoun	I_C	-800	mAdc

Thermal characteristics

PARAMETER	Symbol	MIN.	TYP.	MAX.	UNIT
Total device dissipation FR-5 board (1)	$T_A = 25^\circ C$	P_D		225	mW
	Derate above $25^\circ C$			1.8	mW/ $^\circ C$
Thermal resistance	Junction to ambient	$R_{\theta JA}$		556	$^\circ C/W$
Total device dissipation alumina substrate(2)	$T_A = 25^\circ C$	P_D		300	mW
	Derate above $25^\circ C$			2.4	mW/ $^\circ C$
Thermal resistance	Junction to ambient	$R_{\theta JA}$		417	$^\circ C/W$
Operating junction temperature range	T_J	-55		+150	$^\circ C$
Storage temperature range	T_{STG}	-55		+150	$^\circ C$

1.FR-5 = 1.0 X 0.75 X 0.062 in.

2.Alumina = 0.4 X 0.3 X 0.024 in. 99.5% alumina.

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Electrical characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

Off characteristics

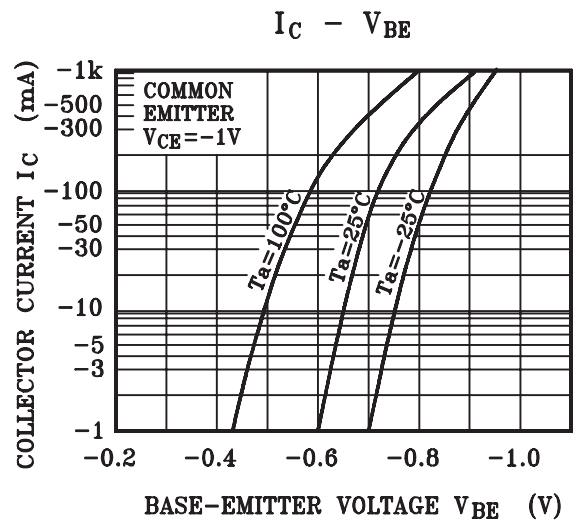
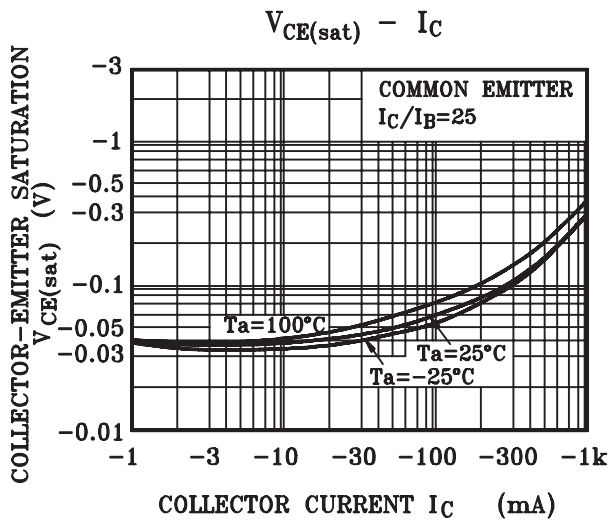
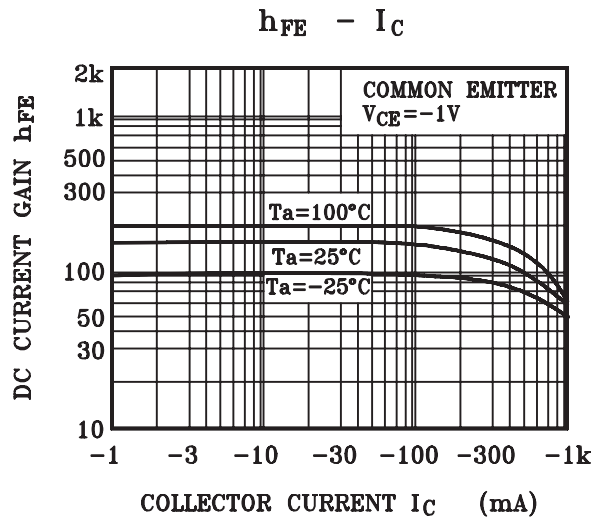
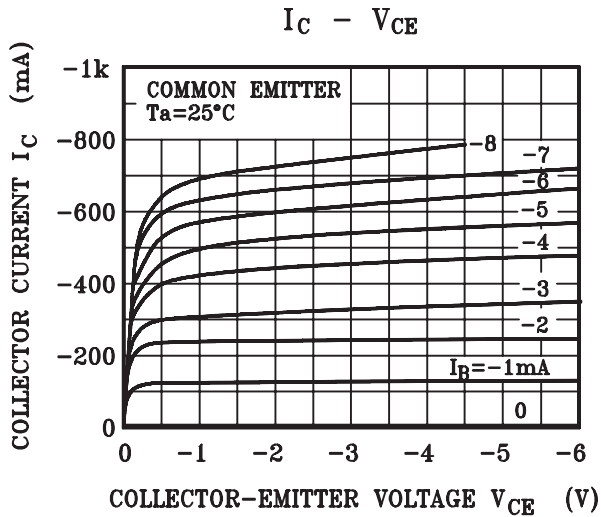
PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Collector-base breakdown voltage	$I_c = -100\mu\text{A}$	$V_{(BR)CBO}$	-40			V
Collector-emitter breakdown voltage	$I_c = -1.0\text{mA}$	$V_{(BR)CEO}$	-25			V
Emitter-base breakdown voltage	$I_E = -100\mu\text{A}$	$V_{(BR)EBO}$	-5.0			V
Collector cutoff current	$V_{CB} = -35\text{V}$	I_{CBO}			-150	nA
Emitter cutoff current	$V_{EB} = -4.0\text{V}$	I_{EBO}			-150	nA

On characteristics

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
DC current gain	$I_c = -100\text{mA}$, $V_{CE} = -1.0\text{V}$	h_{FE}^{*Note}	100		600	
Collector-emitter saturation voltage	$I_c = -800\text{mA}$, $I_B = -80\text{mA}$	$V_{CE(sat)}$			-0.5	V

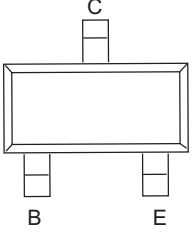
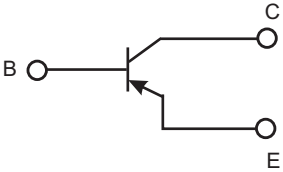
Note	*	P	Q	R	S
	h_{FE}	100~200	150~300	200~400	300~600

Rating and characteristic curves



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Pinning information

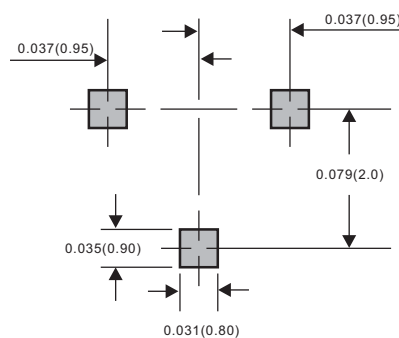
Pin	Simplified outline	Symbol
PinB Base PinC Collector PinE Emitter		

Marking

Type number	Marking code
H8550	2TY

Suggested solder pad layout

SOT-23



Dimensions in inches and (millimeters)