

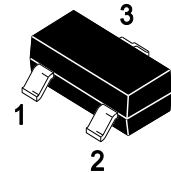
General Purpose Transistors

PNP Silicon

FEATURE

We declare that the material of product compliance with RoHS requirements.
 S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

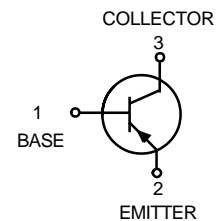
S8550 Series
 S-S8550 Series



SOT-23

DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
S8550P	S-S8550P	85P 3000/Tape&Reel
S8550Q	S-S8550Q	1YD 3000/Tape&Reel
S8550R	S-S8550R	1YF 3000/Tape&Reel
S8550S	S-S8550S	1YH 3000/Tape&Reel



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	-25	V
Collector-Base voltage	V_{CBO}	-40	V
Emitter-base Voltage	V_{EBO}	-5	V
Collector current-continuoun	I_C	-800	mAdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR- 5 Board (1) $T_A = 25\text{ }^\circ\text{C}$	P_D	225	mW
Derate above $25\text{ }^\circ\text{C}$		1.8	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Total Device Dissipation Alumina Substrate, (2) $T_A = 25\text{ }^\circ\text{C}$	P_D	300	mW
Derate above $25\text{ }^\circ\text{C}$		2.4	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Junction and Storage Temperature	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

- FR-5 = 1.0 x 0.75 x 0.062 in.
- Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
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	–	–	V
Collector-Base Breakdown voltage ($I_C = -100\mu\text{A}$)	$V_{(BR)CBO}$	-40	–	–	V
Collector Cutoff Current ($V_{CB} = -35\text{V}$)	I_{CBO}	–	–	-150	nA
Emitter Cutoff Current ($V_{EB} = -4\text{V}$)	I_{EBO}	–	–	-150	nA

- FR-5 = 1.0 x 0.75 x 0.062 in.
- Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

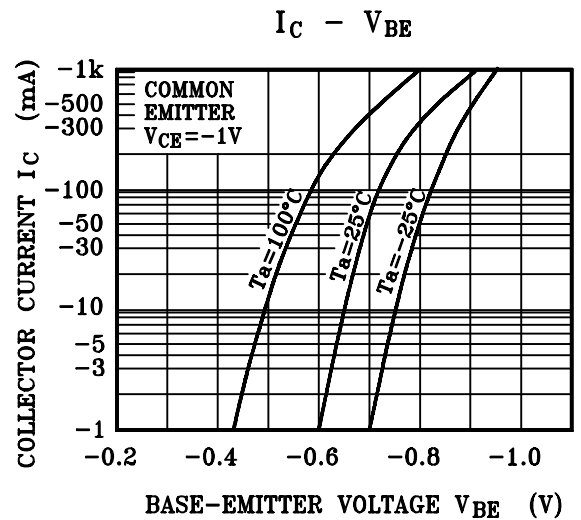
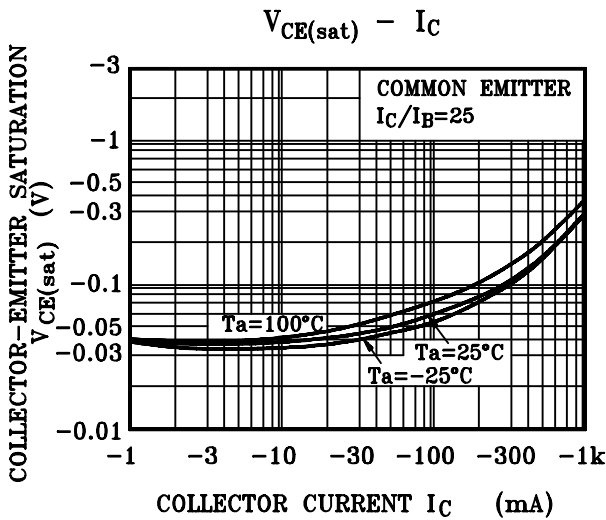
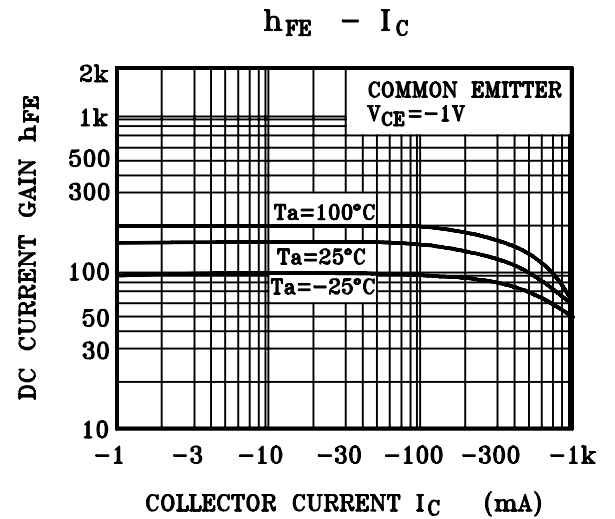
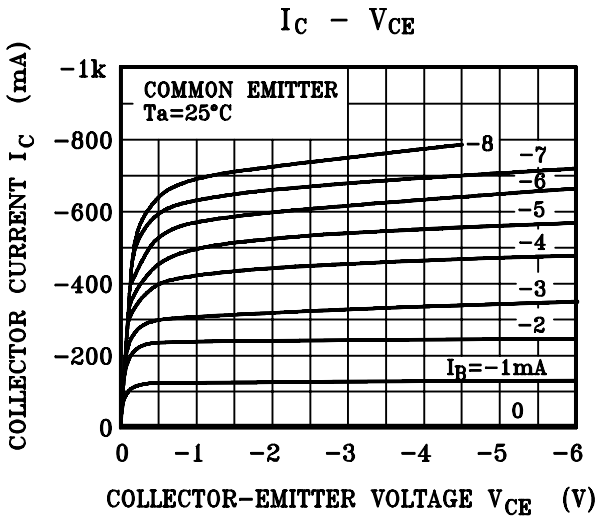
ON CHARACTERISTICS

Characteristic	Symbol	Min	Typ	Max	Unit
DC Current Gain ($I_C = -100\text{mA}$, $V_{CE} = -1\text{V}$)	H_{FE}	100	–	600	
Collector-Emitter Saturation Voltage ($I_C = -800\text{mA}$, $I_B = -80\text{mA}$)	$V_{CE(S)}$	–	–	-0.5	V

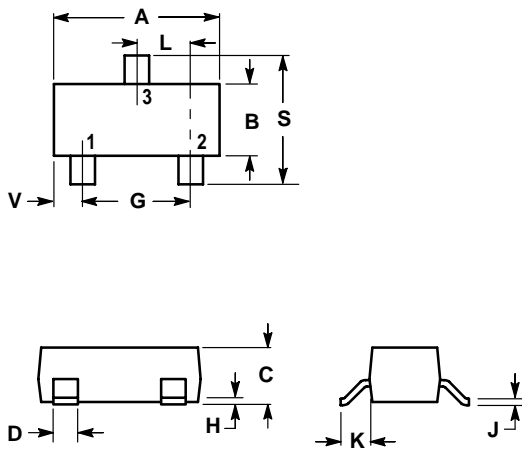
NOTE:

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





SOT-23



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M,1982
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- PIN 1. BASE
 2. EMITTER
 3. COLLECTOR

