

F8550P/F8550Q/F8550R/F8550S TRANSISTOR (PNP)

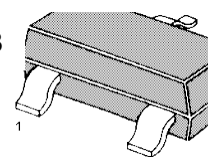
FEATURES

- High current capacity in compact package IC = -0.8A.
- Epitaxial planar type

Marking

Type number	Marking code
F8550P	85P
F8550Q	1YD
F8550R	1YF
F8550S	1YH

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.8	A
P_C	Collector Power Dissipation	0.225	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

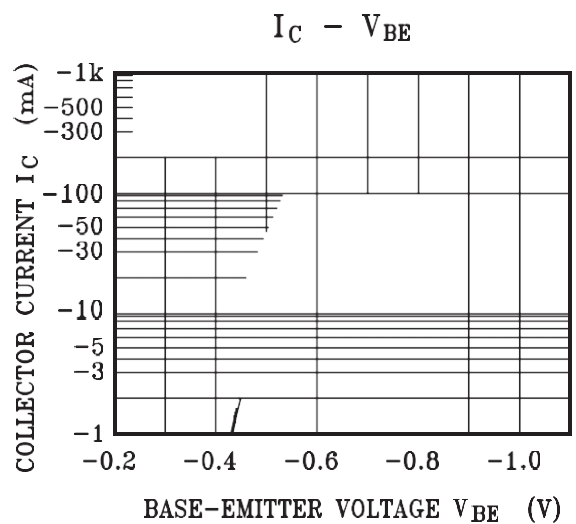
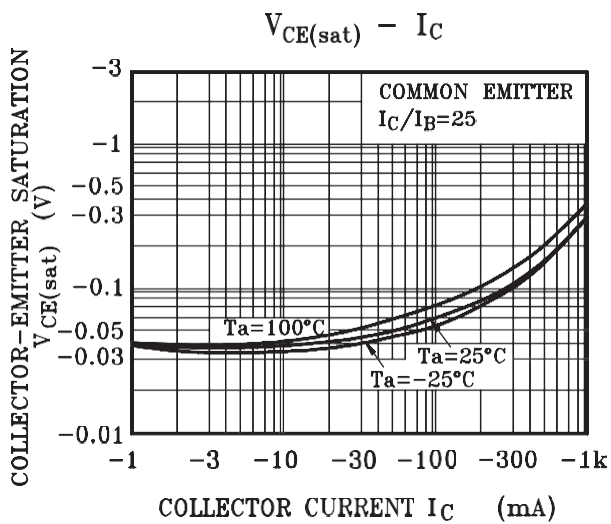
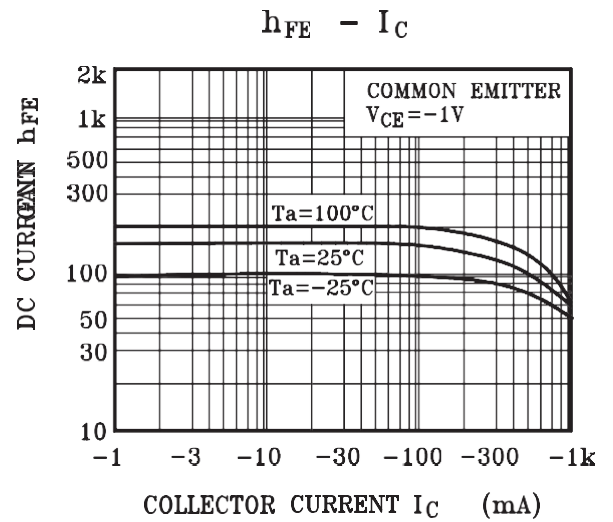
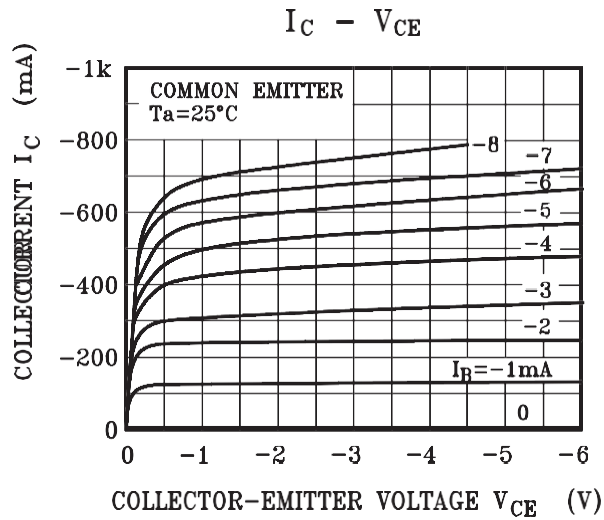
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$, $I_E=0$	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1.0\text{mA}$, $I_B=0$	-25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}$, $I_C=0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB}=-35\text{V}$, $I_E=0$		-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=-20\text{V}$, $I_B=0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4\text{V}$, $I_C=0$		-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-1\text{V}$, $I_C=-100\text{mA}$	100	600	
	$h_{FE(2)}$	$V_{CE}=-1\text{V}$, $I_C=-800\text{mA}$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-800\text{mA}$, $I_B=-80\text{mA}$		-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-800\text{mA}$, $I_B=-80\text{mA}$		-1.2	V
Base-emitter on voltage	$V_{BE(on)}$	$I_C=-1\text{V}$, $V_{CE}=-10\text{mA}$		-1	V
Base-emitter positive favor voltage	V_{BEF}	$I_B=-1\text{A}$		-1.55	V
Transition frequency	f_T	$V_{CE}=-10\text{V}$, $I_C=-50\text{mA}$ $f=30\text{MHz}$	100		MHz
output capacitance	C_{ob}	$(V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz})$		20	pF

h_{FE} Classification

Classification	P	Q	R	S
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h_{FE1}	100 ~ 200	150 ~ 300	200 ~ 400	300 ~ 600
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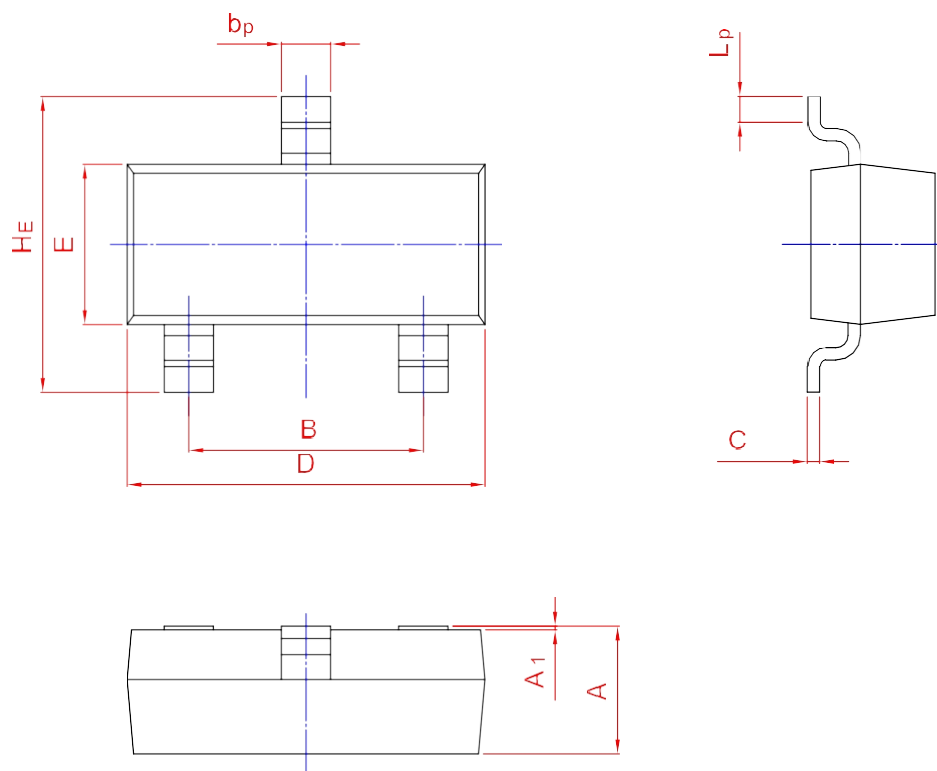
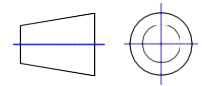
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b _p	C	D	E	H _E	A ₁	L _p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20