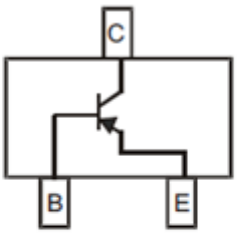
PNP General Purpose Amplifier



SOT-23

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- Part no. with suffix “Q” means AEC-Q101 qualified

Applications

- Linear amplification

Mechanical Data

- **Case**: SOT-23
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking**:

S8550-LQ	2TY·L
S8550-HQ	2TY

■ **Maximum Ratings** (Ta=25℃ unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	V_{CBO}	V		-40
Collector-Emitter Voltage	V_{CEO}	V		-25
Emitter-Base Voltage	V_{EBO}	V		-5
Collector Current -Continuous	I_C	mA		-500
Total Device Dissipation	P_D	mW		300
Thermal Resistance Junction to Ambient	R_{thJA}	K/W		417
Maximum Junction Temperature	T_j	℃		150
Storage Temperature	T_{STG}	℃		-55 to +150

■ Electrical Characteristics (Ta=25℃ unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	I_C=-100μA,I_E=0	-40	
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	I_C=-100μA,I_B=0	-25	
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	I_E=-100μA,I_C=0	-5	
Collector cut-off current	I_{CBO}	nA	V_{CB}=-40V, I_E=0		-100
Collector cut-off current	I_{CEO}	nA	V_{CE}=-20V, I_B=0		-100
Emitter cut-off current	I_{EBO}	nA	V_{EB}=-5V, I_C=0		-100
DC current gain	$h_{FE(1)}$		V_{CE}=-1.0V,I_C=-50mA	120	350
	$h_{FE(2)}$		V_{CE}=-1.0V,I_C=-500mA	50	
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	I_C=-500mA,I_B=-50mA		-0.6
Base-emitter saturation voltage	$V_{BE(sat)}$	V	I_C=-500mA,I_B=-50mA		-1.2
Transition frequency	fT	MHz	VCE=-6Vdc,IC=-20mA,f=30MHz	150	

■Classification Of $h_{FE\ (1)}$

Rank	L	H
Range	120-200	200-350

■Ordering Information

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
S8550-LQ THRU S8550-HQ	F2	Approximate 0.01	3000	30000	120000	7” reel

■Characteristics (Typical)

Figure 1. Static Characteristic

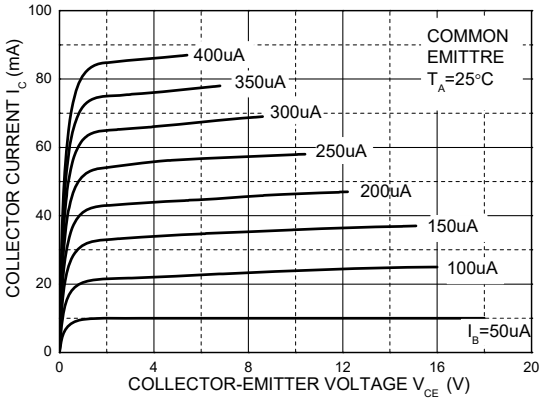


Figure 2.h_{FE} - I_C

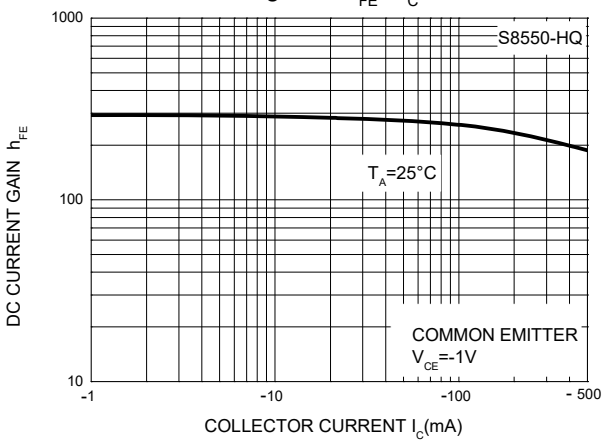


Figure.3 V_{BEsat} - I_C

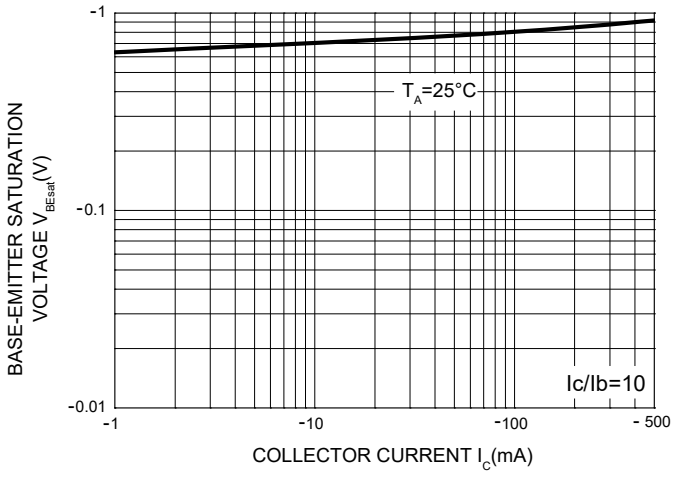
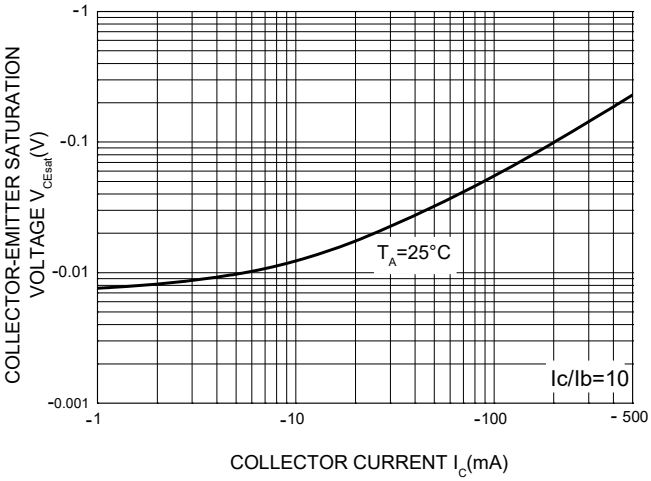
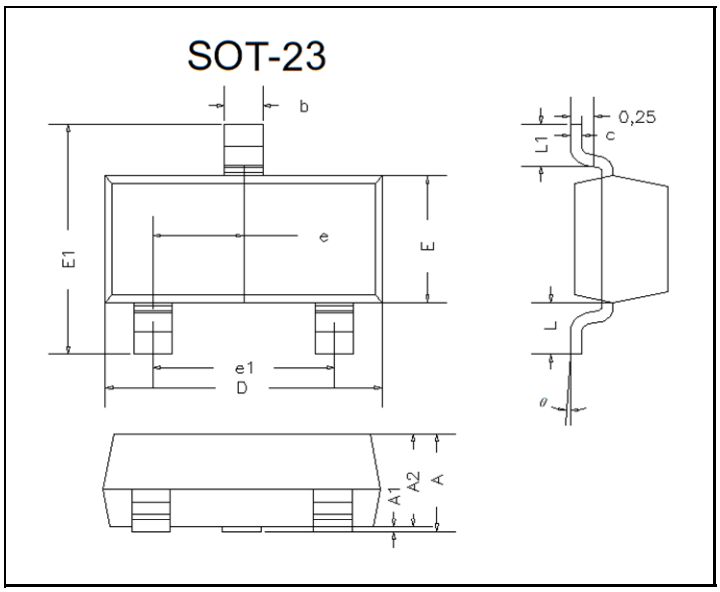


Figure.4 V_{CEsat} - I_C

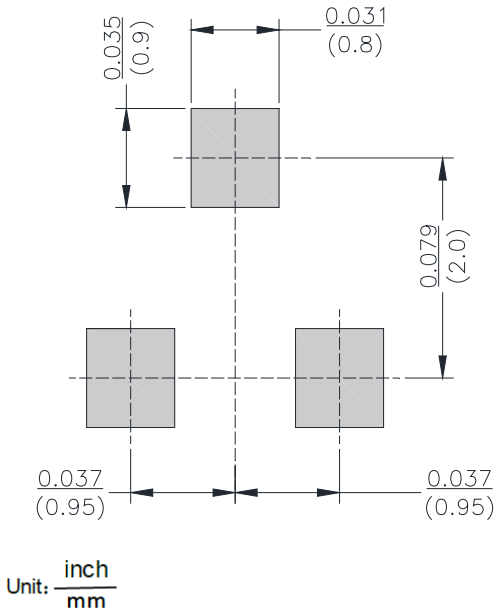


■SOT-23 Package Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.045	0.90	1.15	
A1	0.000	0.004	0.00	0.10	
A2	0.035	0.041	0.90	1.05	
b	0.012	0.020	0.30	0.50	
c	0.004	0.008	0.10	0.20	
D	0.110	0.118	2.80	3.00	
E	0.047	0.055	1.20	1.40	
E1	0.089	0.100	2.25	2.55	
e	0.370TYP		0.95TYP		
e1	0.071	0.079	1.80	2.00	
L	0.220REF		0.55REF		
L1	0.012	0.020	0.30	0.50	
θ	0°	8°	0°	8°	

■SOT-23 Suggested Pad Layout



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