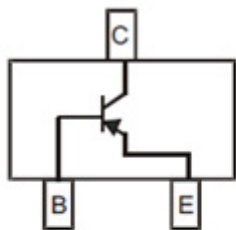


PNP General Purpose Amplifier



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°C 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	°C		150
Storage Temperature	T_{STG}	°C		-55 to +150



■ Electrical Characteristics (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C=-100\mu A, I_E=0$	-40	
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C=-100\mu A, I_B=0$	-25	
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E=-100\mu A, I_C=0$	-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	$V_{CE}=-6V_{dc}, I_C=-20mA, f=30MHz$	150	

■ Classification Of h_{FE} (1)

Rank	L	H
Range	120-200	200-350

■ Ordering Information

PREFERRED P/N	PACKING	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
S8550-LQ THRU S8550-HQ	SOT-23	Approximate 0.01	3000	30000	120000	7" reel



■ Characteristics (Typical)

Figure 1. Static Characteristic

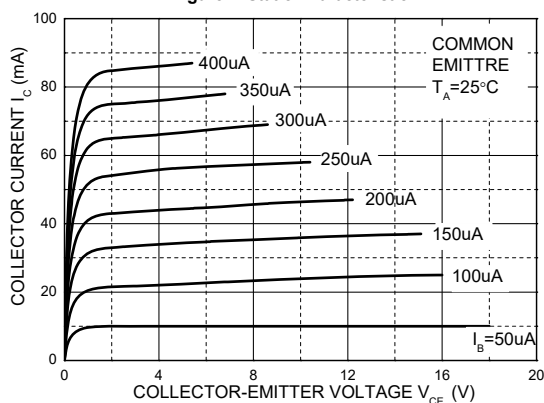


Figure 2. $h_{FE} - I_C$

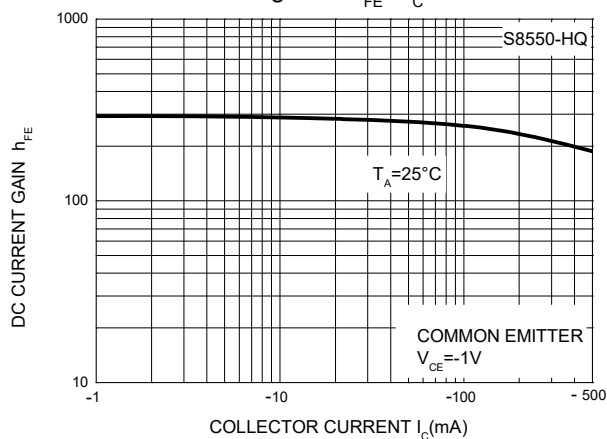


Figure 3. $V_{BEsat} - I_C$

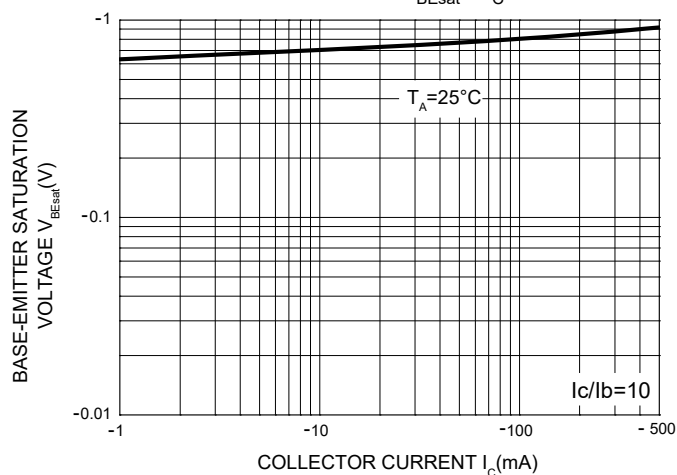
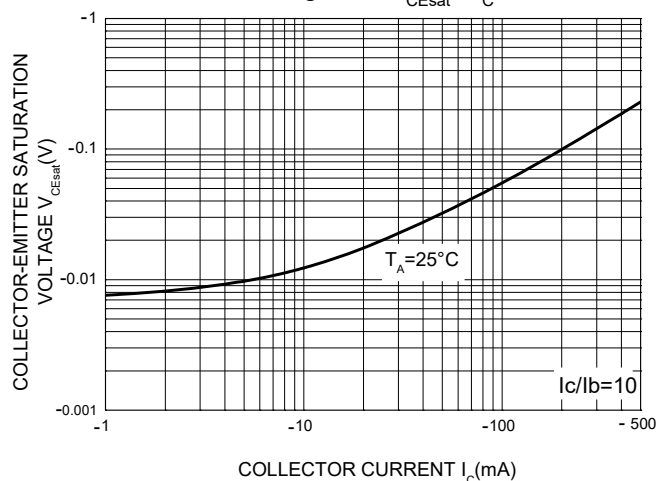
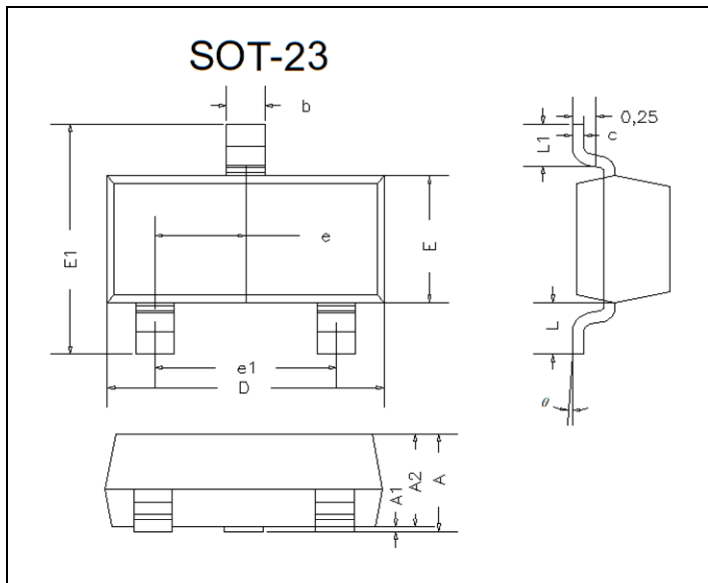


Figure 4. $V_{CEsat} - I_C$



■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
