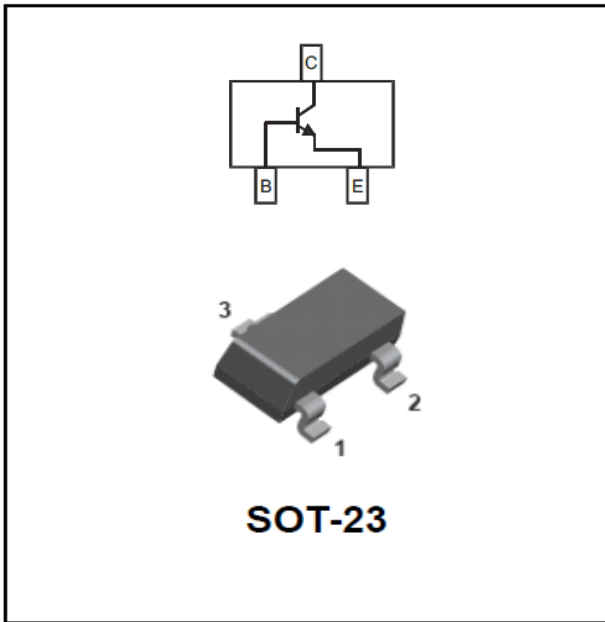


NPN General Purpose Amplifier



Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- Marking:

S8050-L	J3Y • L
S8050-H	J3Y

■ 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	I_C	mA		500
Collector Power Dissipation	P_C	mW		300
Operation Junction Temperature	T_j	°C		-55 to +150
Storage Temperature	T_{stg}	°C		-55 to +150

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

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	V_{CBO}	V	$I_C=100\mu A, I_E=0$	40		
Collector-emitter breakdown voltage	V_{CEO}	V	$I_C=100\mu A, I_B=0$	25		
Emitter-base breakdown voltage	V_{EBO}	V	$I_E=100\mu A, I_C=0$	5		
Collector-Emitter cut-off current	I_{CEX}	nA	$V_{CE}=20V, V_{BE}=3V$			100
Collector-base cut-off current	I_{CBO}	nA	$V_{CB}=40V, I_E=0$			100
Emitter-base cut-off current	I_{EBO}	nA	$V_{EB}=5V, I_C=0$			100
DC current gain	$h_{FE(1)}$		$V_{CE}=1V, I_C=50mA$	120		350
	$h_{FE(2)}$		$V_{CE}=1V, I_C=500mA$	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	f_T	MHz	$V_{CE}=6V, I_C=20mA, f=30MHz$	150		



Classification Of HFE

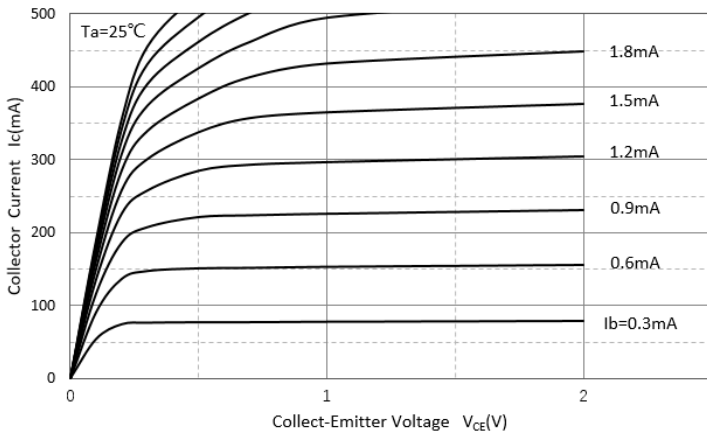
Rank	L	H
Range	120-200	200-350

Ordering Information (Example)

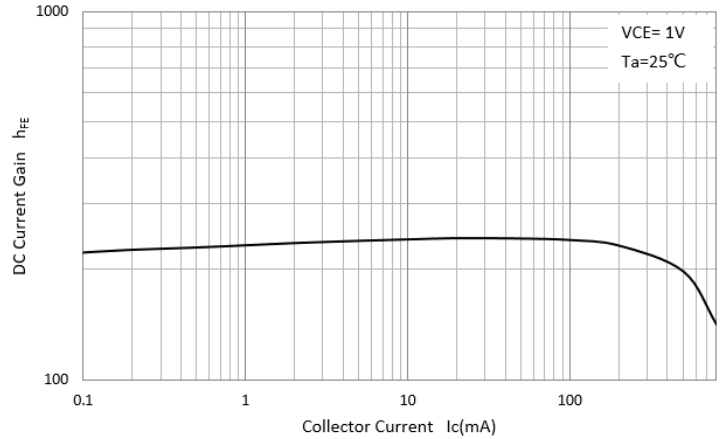
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
S8050	F2	Approximate 0.008	3000	30000	120000	7" reel

Characteristics (Typical)

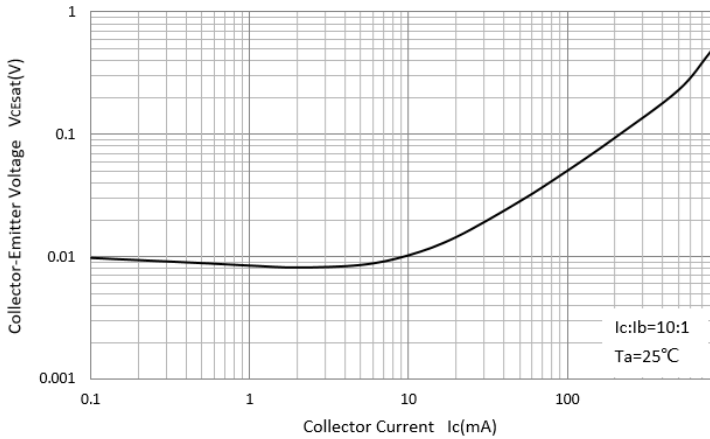
Static Characteristic



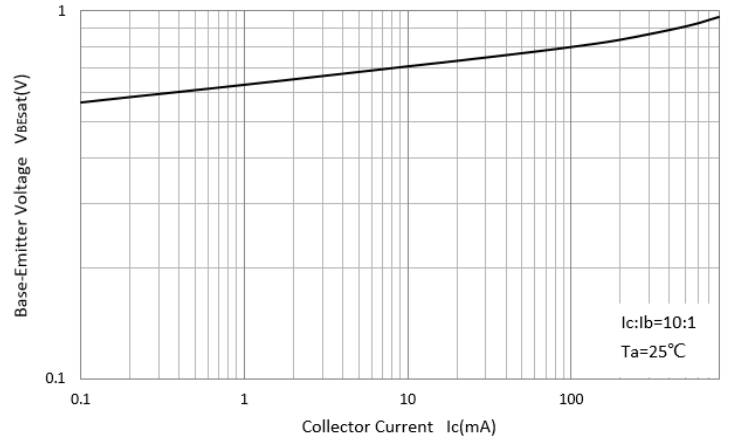
DC Current Gain



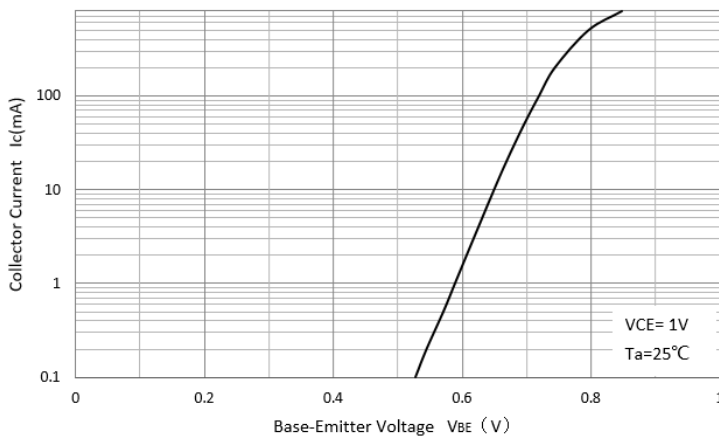
Collector-Emitter Saturation Voltage



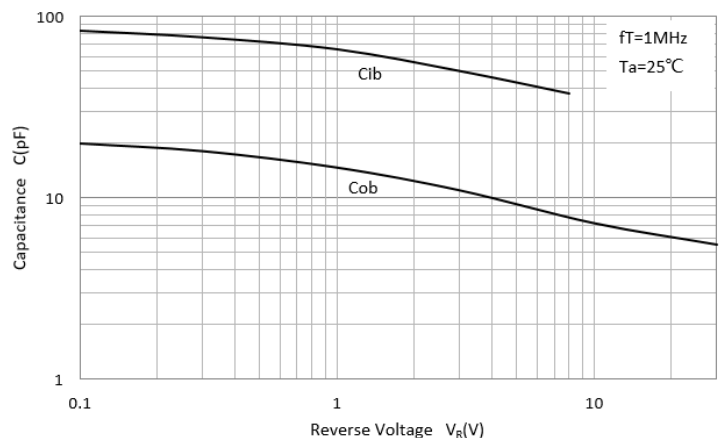
Base-Emitter Saturation Voltage

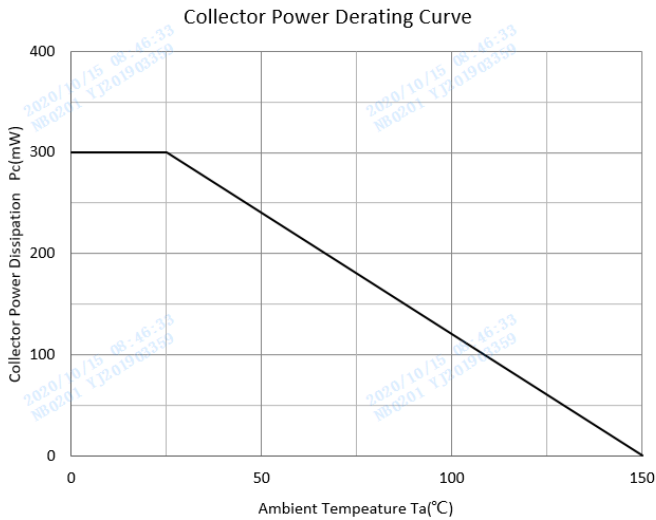


Base-Emitter On Voltage

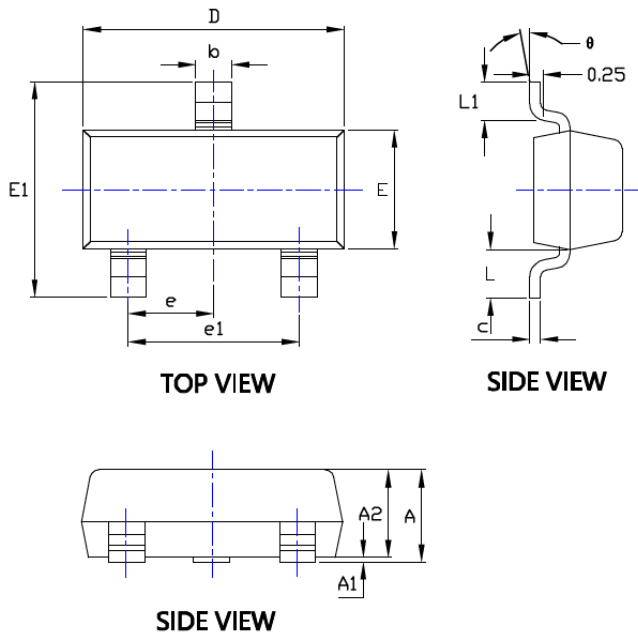


Cob/Cib-V_{CB}/V_{EB}



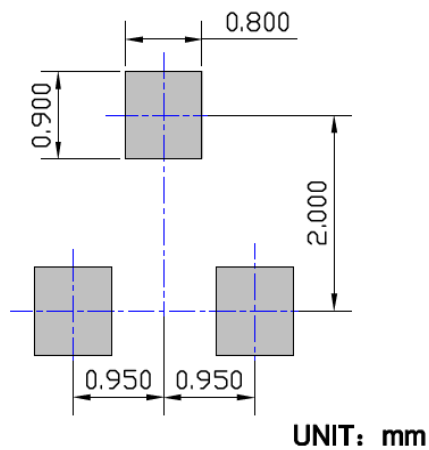


■SOT-23 Package Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
θ	0°	8°	0°	8°

■SOT-23 Soldering Footprint





Disclaimer

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