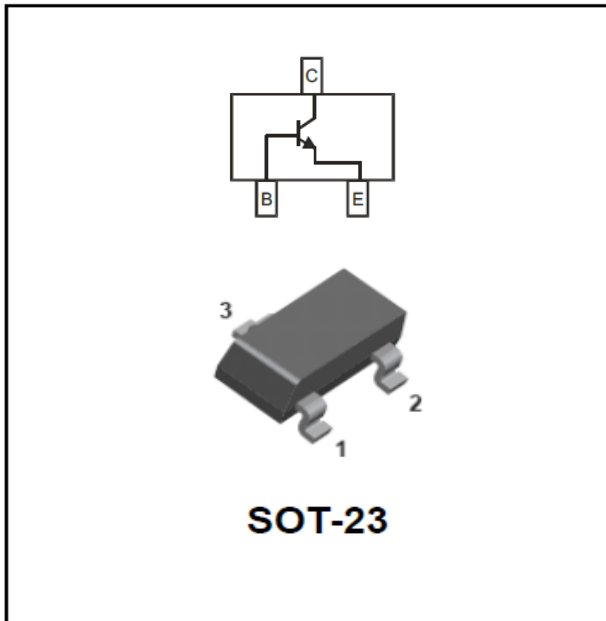


NPN General Purpose Amplifier



Features

- Epoxy meets UL-94 V-0 flammability rating
- 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	VCBO	V		40
Collector-Emitter Voltage	VCEO	V		25
Emitter-Base Voltage	VEBO	V		5
Collector Current -Continuous	IC	mA		500
Total Device Dissipation	PD	mW		300
Junction Temperature	TJ	°C		150
Storage Temperature	TSTG	°C		-55 to +150

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

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	IC=100uA, IE=0	40		
Collector-emitter breakdown voltage	$V_{(BR)CEO^*}$	V	IC =100uA, IB=0	25		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	IE=100uA, IC=0	5		
Collector cut-off current	I_{CEX}	nA	VCE=20V, IB =0			100
Base cut-off current	I_{CBO}	nA	VCB=40V, IE=0			100
Emitter cut-off current	I_{EBO}	nA	VEB=5V, IC =0			100
DC current gain	$h_{FE(1)}$		VCE=1V, IC=50mA	120		350
	$h_{FE(2)}$		VCE=1V, IC=500mA	50		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	IC=500mA, IB=50mA			0.6
Base-emitter saturation voltage	$V_{BE(sat)}$	V	IC=500mA, IB=50mA			1.2
Transition frequency	f_T	MHz	VCE=6V, IC=20mA, f=30MHz	150		



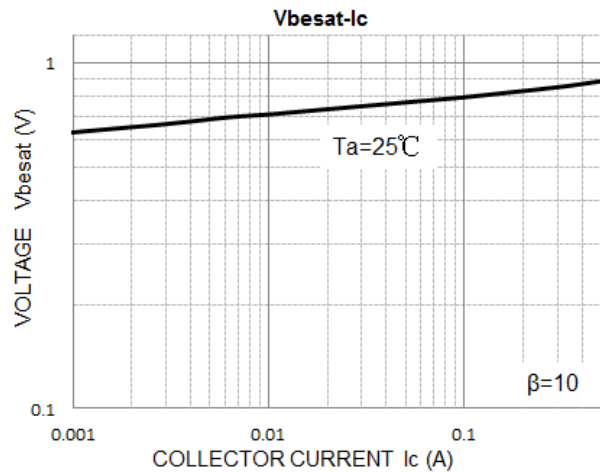
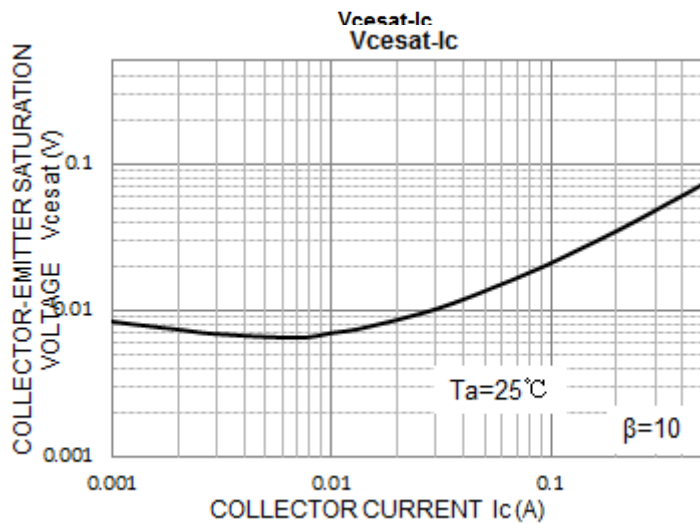
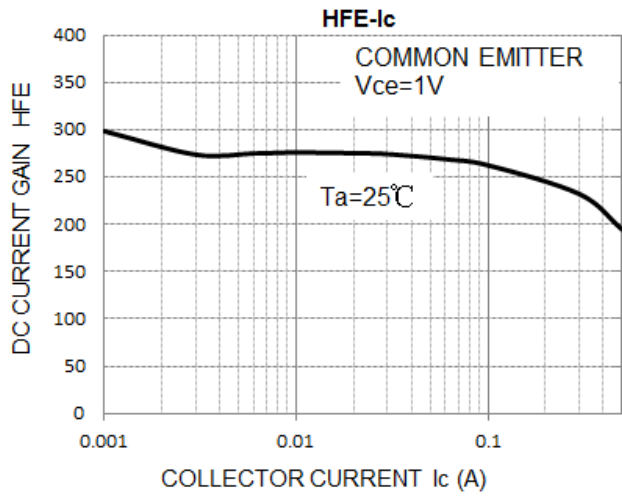
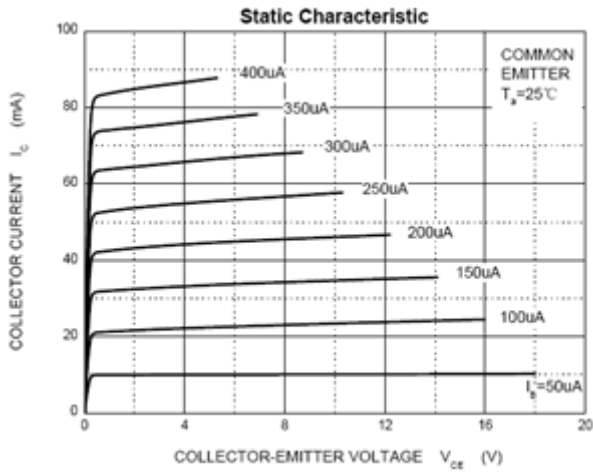
■ Classification Of Hfe (1)

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

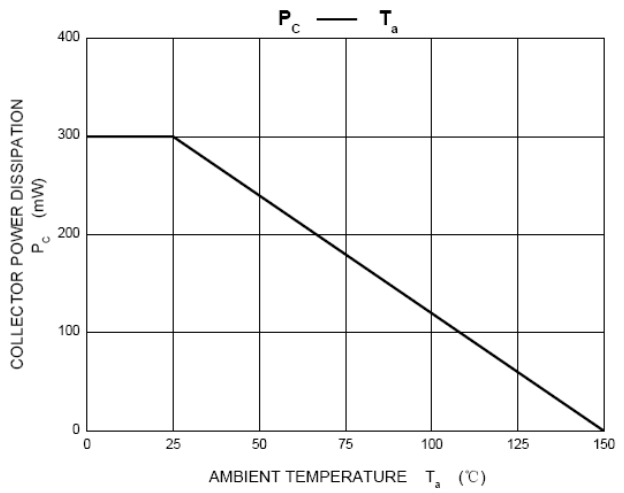
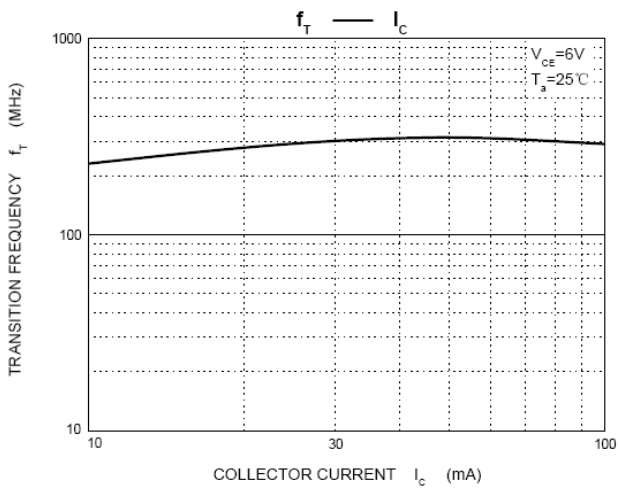
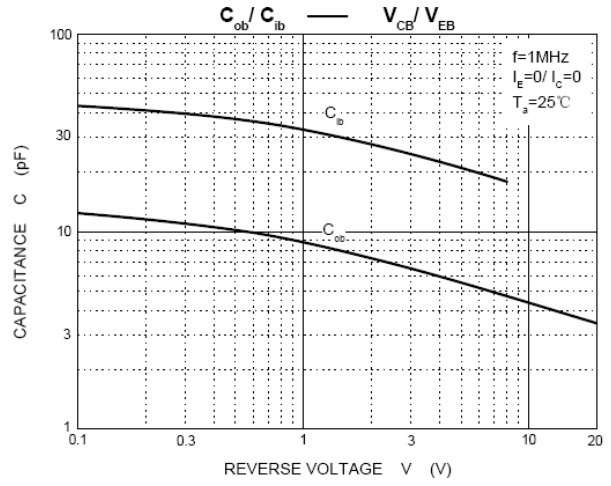
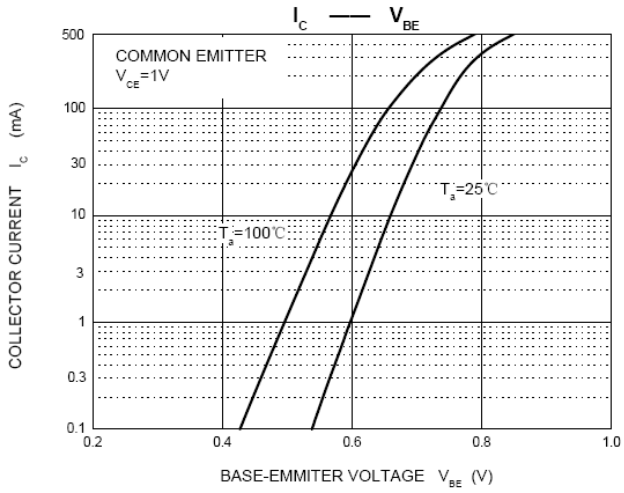
■ Characteristics (Typical)





S8050-L THRU S8050-H

RoHS
COMPLIANT

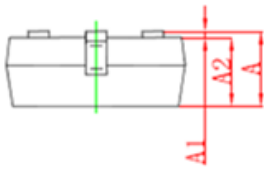
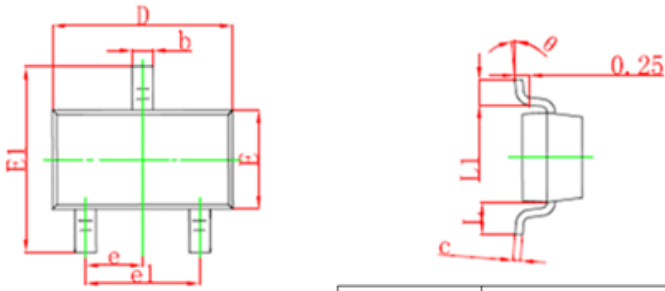




S8050-L THRU S8050-H

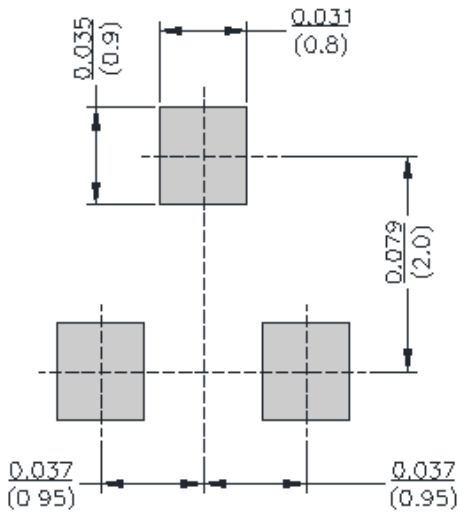
RoHS
COMPLIANT

■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■SOT-23 Suggested Pad Layout





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