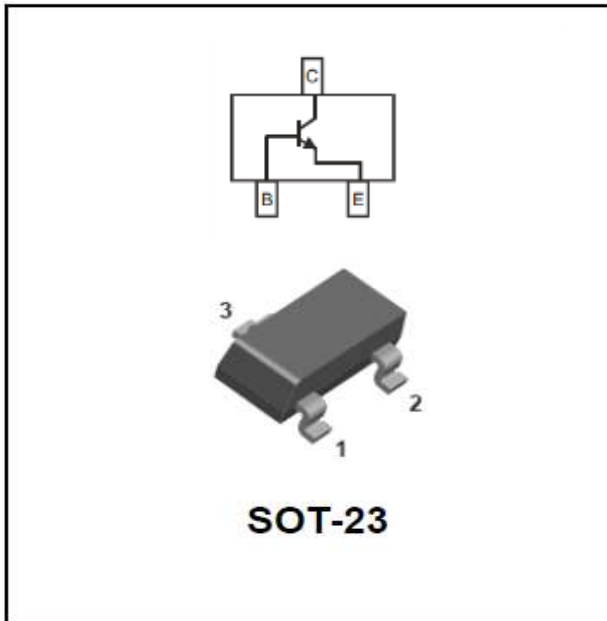


## NPN General Purpose Amplifier



### Features

- Epoxy meets UL-94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: 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	ICEX	nA	VCE=20V, IB =0			100
Base cut-off current	ICBO	nA	VCB=40V, IE=0			100
Emitter cut-off current	IEBO	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	fT	MHz	VCE=6V, IC=20mA, f=30MHz	150		

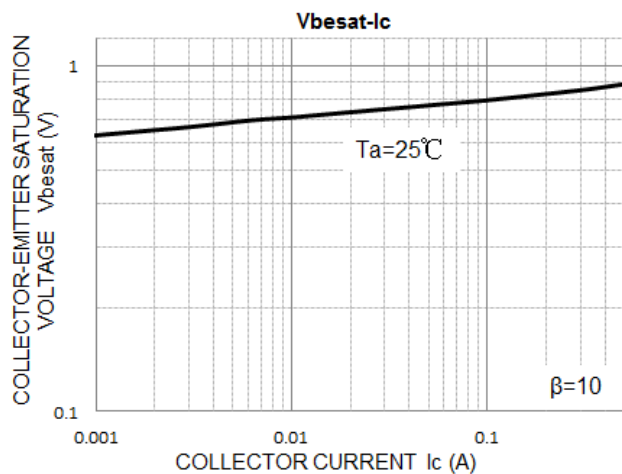
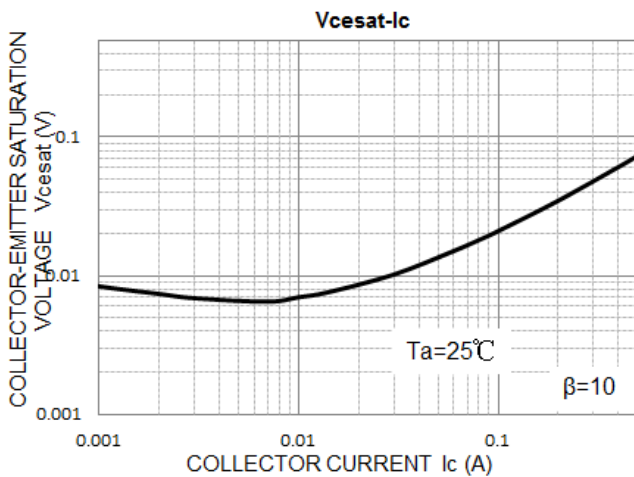
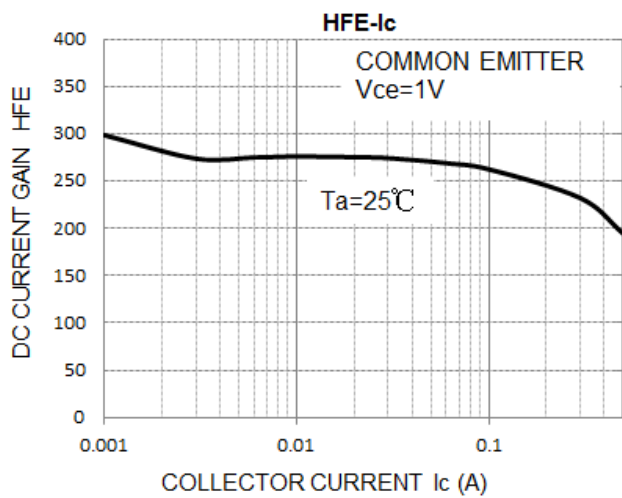
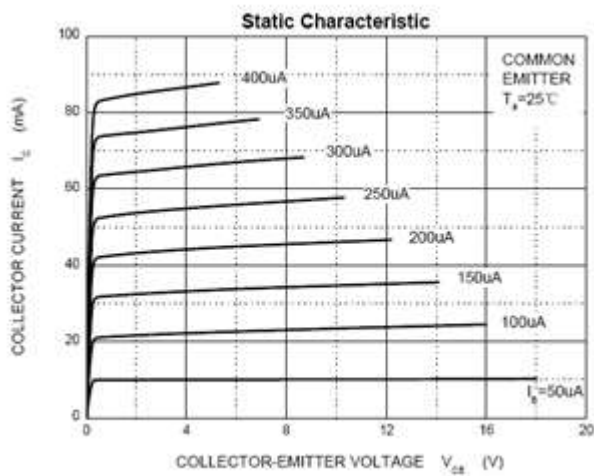
## ■ CLASSIFICATION OF HFE (1)

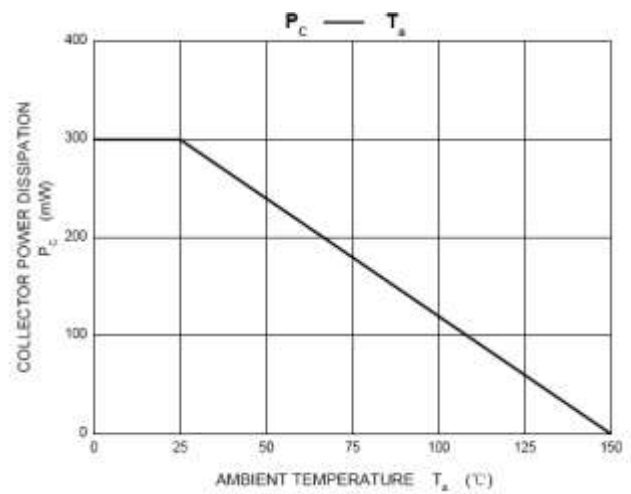
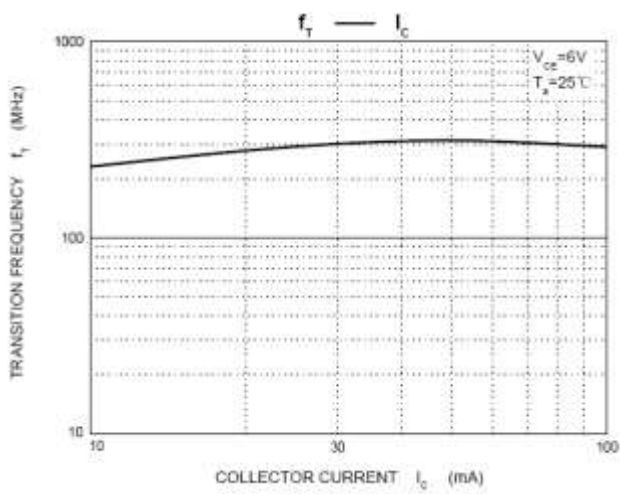
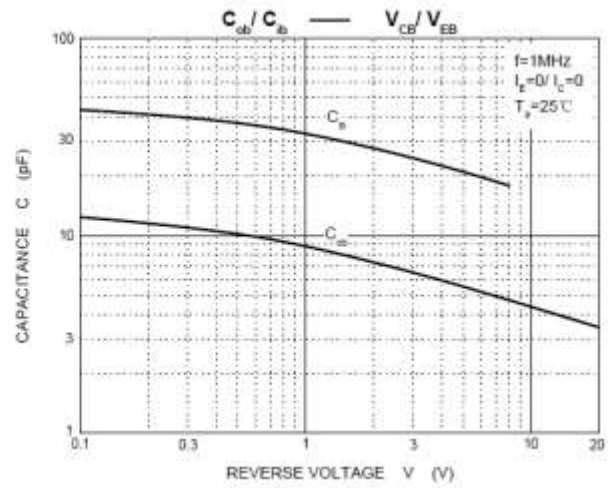
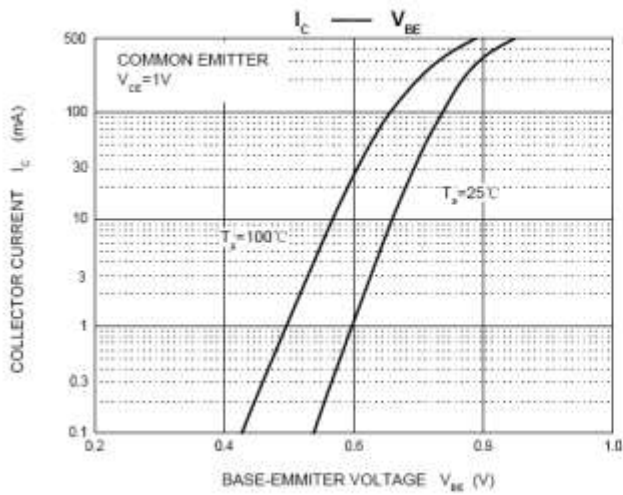
Rank	L	H
Range	120-200	200-350

## ■ Ordering Information (Example)

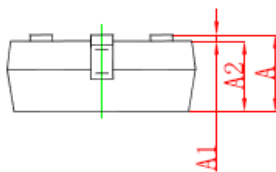
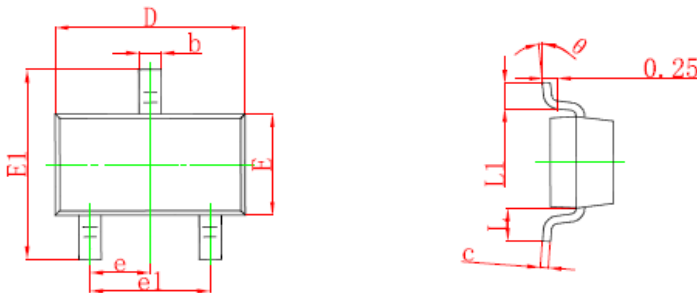
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
S8050	F2	Approximate 0.008	3000	30000	120000	7" reel

## ■ Characteristics (Typical)



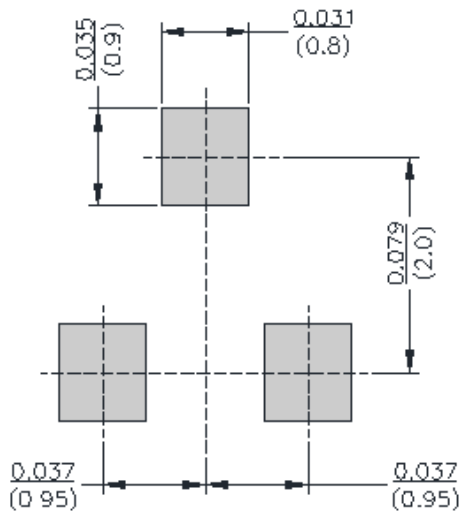


## ■ SOT-23 Package Outline Dimensions



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	0.080	0.150	0.003	0.006
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	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
$\theta$	0°	8°	0°	8°

■ SOT-23 Suggested Pad Layout



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