

General Purpose Transistors

NPN Silicon

FEATURE

- High current capacity in compact package.
 $I_C = 0.5A$.
- Epitaxial planar type.
- NPN complement: LX8050
- Pb-Free Package is available.

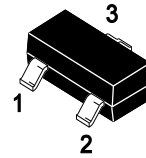
DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
X8050P	X8A	3000/Tape&Reel
X8050Q	X8C	3000/Tape&Reel
X8050R	X8E	3000/Tape&Reel
X8050S	X8G	3000/Tape&Reel

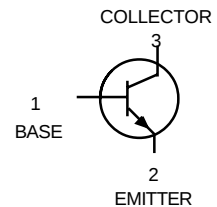
MAXIMUM RATINGS

Rating	Symbol	Max	Unit
Collector-Emitter Voltage	V_{CEO}	25	V
Collector-Base Voltage	V_{CBO}	40	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current-continuoun	I_C	800	mAdc
Total Device Dissipation	P_D	300	mW
Junction and Storage Temperature	T_J, T_{stg}	-55 to +150	°C

X8050 Series



SOT23



ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

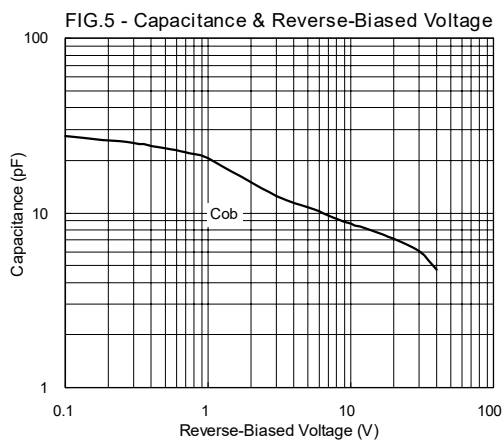
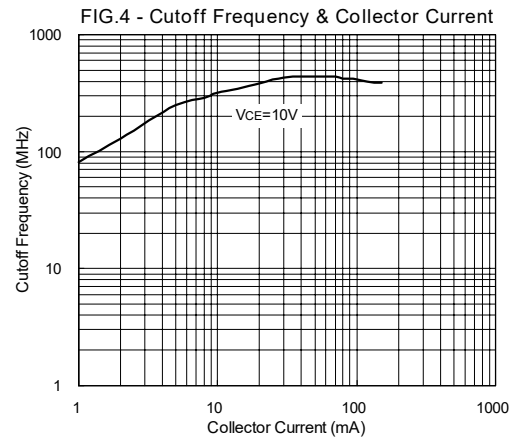
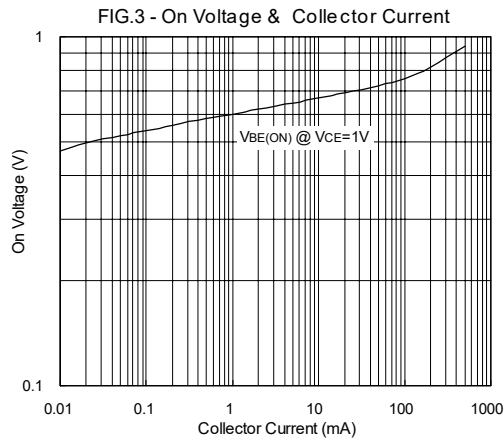
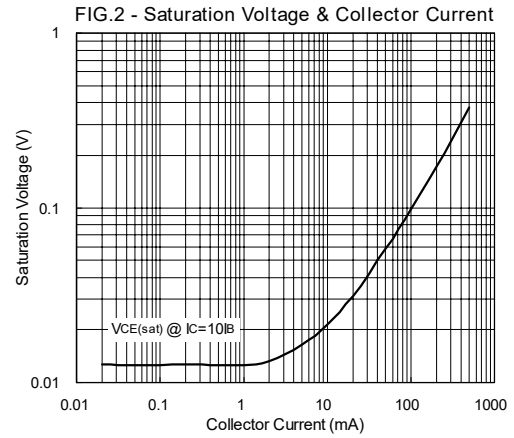
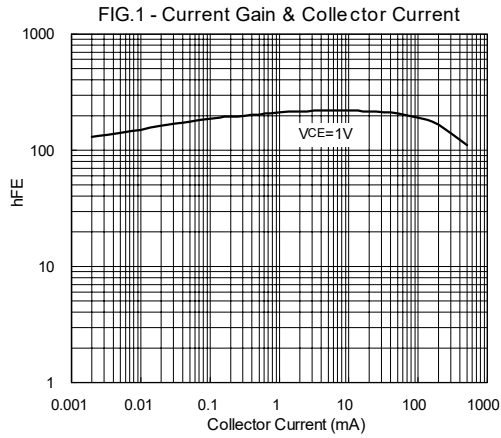
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{CBO}	I _C = 100 μ A , I _E = 0	40			V
Collector-emitter breakdown voltage *	V _{CEO}	I _C = 1mA , I _B = 0	25			V
Emitter-base Breakdown voltage	V _{EBO}	I _E = 100 μ A , I _C = 0	6			V
Collector-base cut-off current	I _{CBO}	V _{CB} = 35V , I _E = 0			0.1	μ A
Collector-emitter cut-off current	I _{CEO}	V _{CE} = 20 V , I _B = 0			0.1	μ A
Emitter-base cut-off current	I _{EBO}	V _{EB} = - 4 V , I _C = 0			-0.15	μ A
DC current gain **	h _{FE}	V _{CE} = 1 V , I _C = 100 mA	100		600	
		V _{CE} = 1 V , I _C = 800 mA	40			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 800 mA , I _B = 80 mA			0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 800 mA , I _B = 80 mA			1.2	V
Transition frequency	f _T	V _{CE} = 6 V , I _C = 20 mA , f = 30 MHz	150			MHz

* Pulse Test : pulse width $\leq$ 300 μ s , duty cycle $\leq$ 2%.

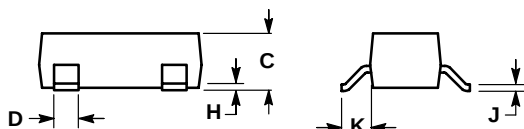
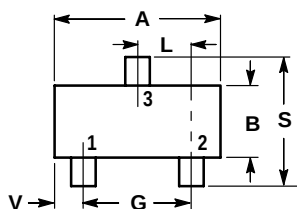
NOTE :

**	P	Q	R	S
h _{FE}	100~200	150~300	200~400	300~600





SOT-23



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M,1982
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- PIN 1. BASE
2. EMITTER
3. COLLECTOR

