

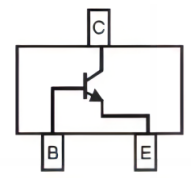
Features

- Complementary to S8050
- Power Dissipation of 300mW
- High Stability and High Reliability
- Halogen-free、RoHS Compliant

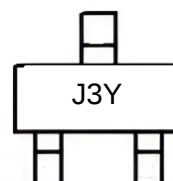
Mechanical Data

- PackageType:SOT-23,SmallOutlinePlasticPackage
- EpoxyUL:94V-0
- MountingPosition:Any

GENERAL FEATURES		
V _{CBO}	40	V
V _{CEO}	25	V
I _c	500	mA
HFE@VCE=1V , IC=50mA	120-400	--



Schematic diagram



Marking and pin Assignment



SOT-23 top view

Package Marking And Ordering Information					
Device Marking	Device	Device Package	Reel Size	Minimum Package	Outer CarTon
J3Y	S8050	SOT-23	7 Inch	3000 units	180000 units
			12 Inch	10000 units	200000 units

Absolute Maximum Ratings (TA=25 °C unless otherwise noted)

Parameter	Symbol	Limit	Unit
Collector-Base voltage	V _{CBO}	40	V
Collector-Emitter voltage	V _{CEO}	25	V
Emitter--Base voltage	V _{EBO}	5	A
Collector Current-Continuous	I _c	500	mA
Collector Power Dissipation	P _C	300	mW
Junction temperature	T _J	150	°C
Storage temperature	T _{STG}	-55 To 150	°C

Thermal Characteristic

Thermal Resistance,Junction-to-Ambient (Note 2)	R _{θJA}	416	°C/W
---	------------------	-----	------

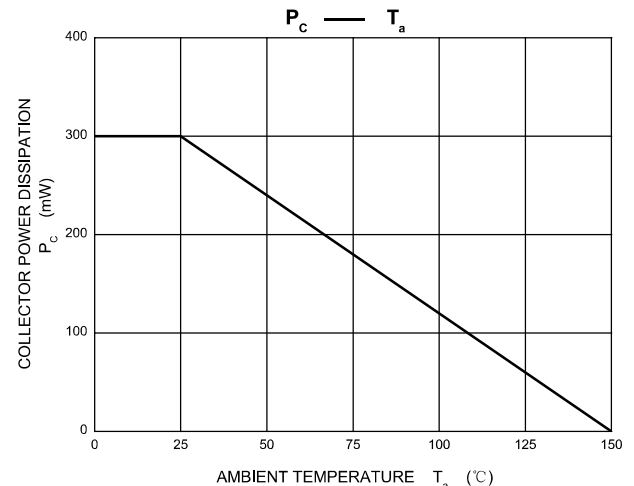
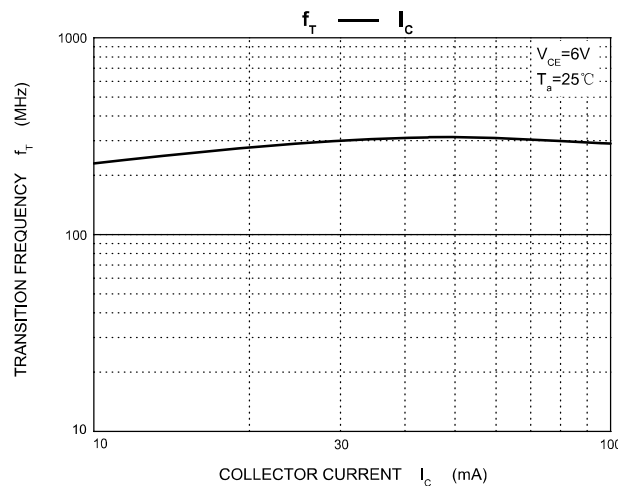
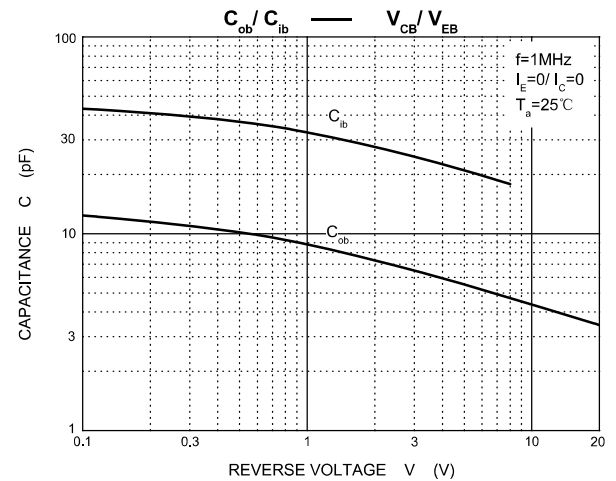
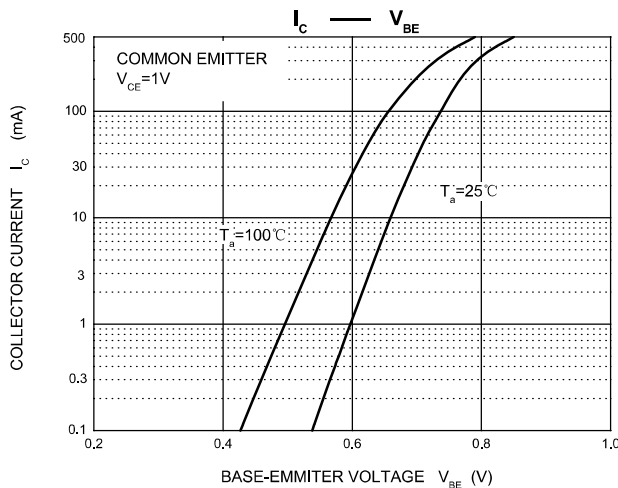
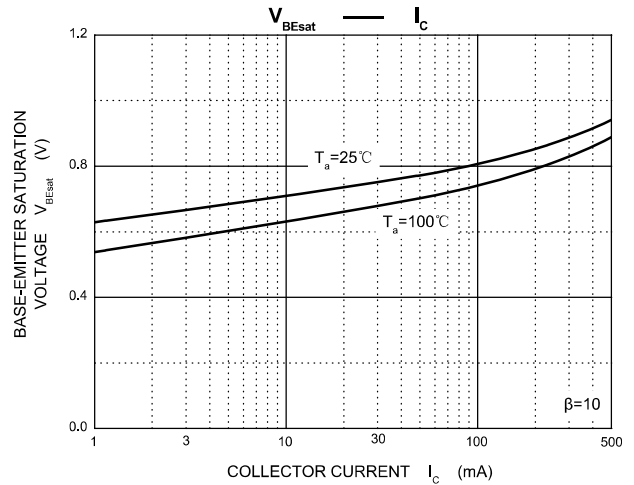
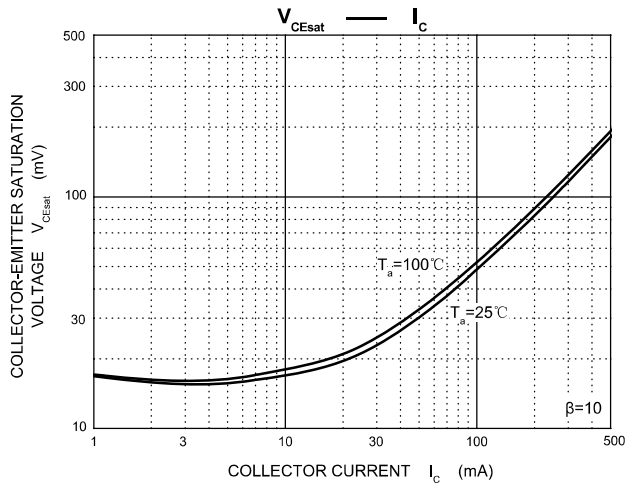
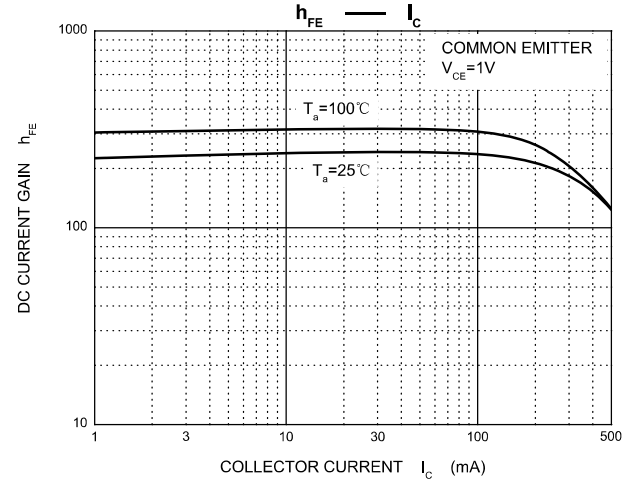
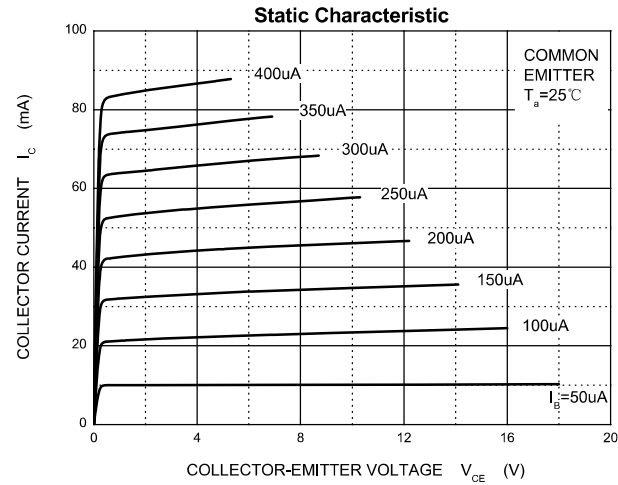
Electrical Characteristics (TA=25 °C unless otherwise noted)

Parameter	Symbol	Condition	Min	Max	Unit
Collector-base breakdown voltage	BVCBO	IC=100uA , IE=0	40	-	V
Collector-emitter breakdown voltage	BVCEO	IC=1mA , IB=0	25	-	V
Emitter-base breakdown voltage	BVEBO	IE=100uA , IC=0	5	-	V
Collector-base cut-off current	ICBO	VCB=40V , IE=0	-	100	nA
Collector-base cut-off current	ICEO	VCB=20V , IE=0		100	nA
Collector-Emitter cut-off current	IEBO	VEB=5V , IC=0		100	nA
DC current gain	HFE1	VCE=1V , IC=50mA	120	400	
	HFE2	VCE=1V , IC=500mA	50	-	
Collector-emitter saturation voltage	VCE(sat)	IC=500mA , IB=50mA	-	0.60	V
Base-emitter saturation voltage	VBE(sat)	IC=500mA , IB=50mA		1.20	V
Base-emitter voltage	VBE(on)	VCE=1V , IC=10mA		0.70	V
Transition frequency	fT	VCE=6V , IC=20mA , f=30MHz	150		MHz

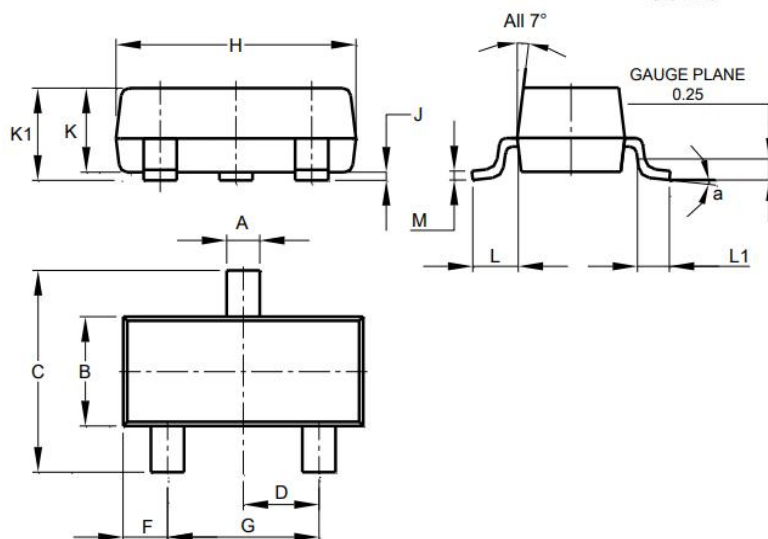
Classification of HFE1

HFE1	120-400		
RANK	L	H	J
RANGE	120-200	200-350	300-400

Typical Characteristics



SOT23



SOT23			
Dim	Min	Max	Typ
A	0.37	0.51	0.40
B	1.20	1.40	1.30
C	2.30	2.50	2.40
D	0.89	1.03	0.915
F	0.45	0.60	0.535
G	1.78	2.05	1.83
H	2.80	3.00	2.90
J	0.013	0.10	0.05
K	0.890	1.00	0.975
K1	0.903	1.10	1.025
L	0.45	0.61	0.55
L1	0.25	0.55	0.40
M	0.085	0.150	0.110
a	0°	8°	--
All Dimensions in mm			