

SOT-23 Plastic-Encapsulate Transistors

Features

- Complementary to S8050.
- 300mW; Power Dissipation of 300mW
- High Stability and High Reliability

Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: An



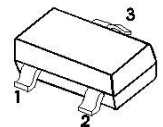
RoHS
COMPLIANT



Marking: 2TY

SOT-23

Pin definition



1. BASE
2. EMITTER
3. COLLECTOR

Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	-40	V
Collector-Emitter Voltage	V _{CEO}	-25	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-500	mA
Collector Power Dissipation	P _C	300	mW
Operating junction temperature range	T _J	150	°C
Storage temperature range	T _{STG}	-55-+150	°C
Thermal Resistance from Junction to Ambient	R _{θJA}	417	°C/W

Electrical Specifications (T_A=25°C unless otherwise noted)

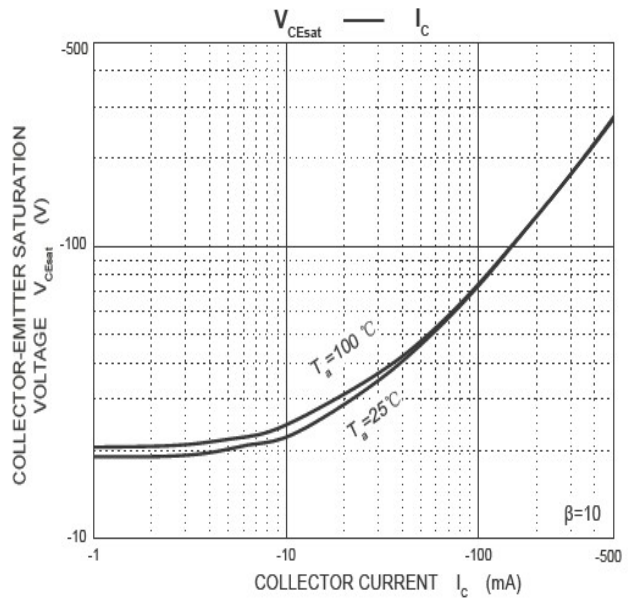
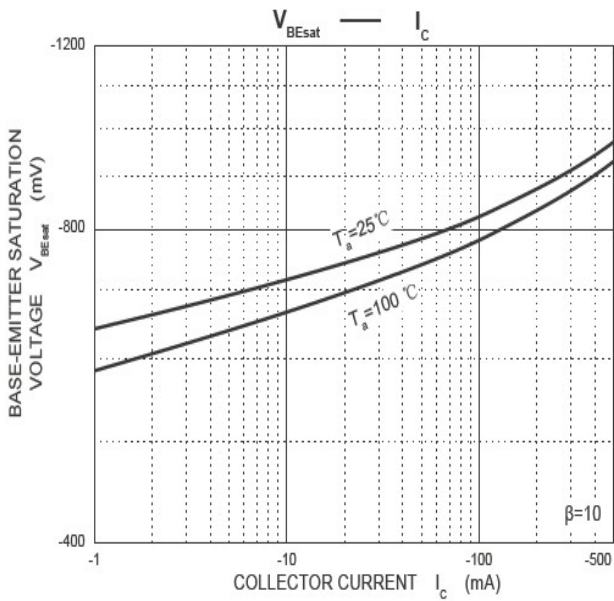
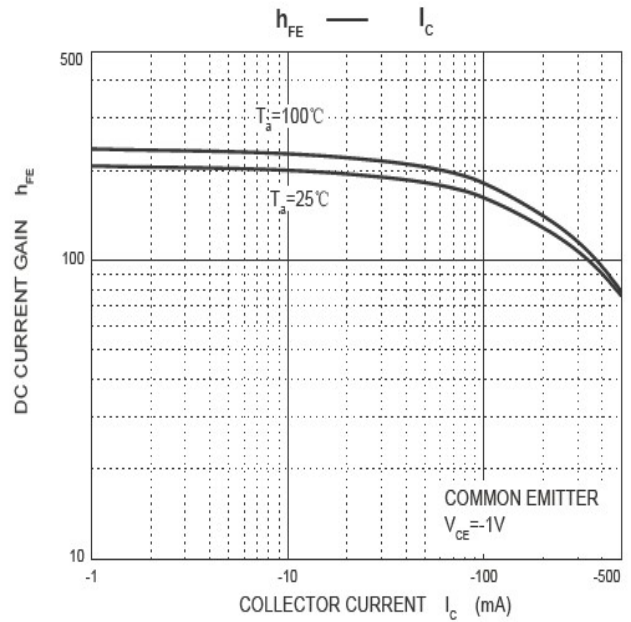
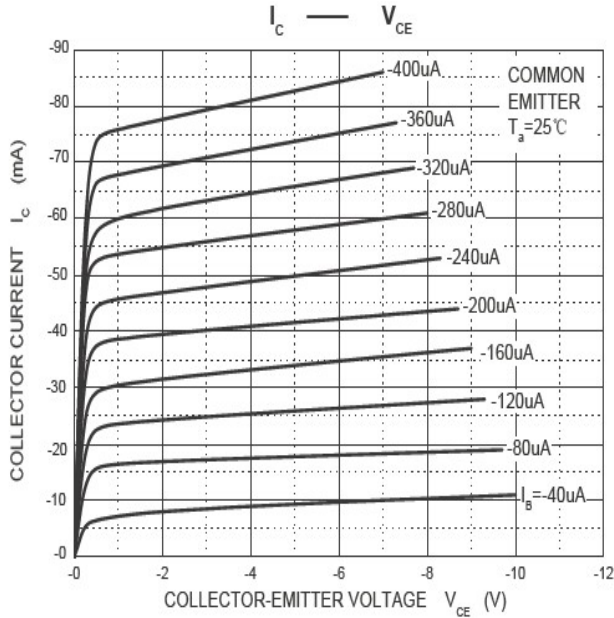
Parameter	Symbol	Test Conditions	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	I _C =-100uA, I _E =0	-40		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =-1mA, I _B =0	-25		
Emitter-base breakdown voltage	V(BR)EBO	I _E =-100uA, I _C =0	-5		
Collector cut-off current	I _{CEO}	V _{CE} =-20V, I _B =0		-100	nA
Collector cut-off current	I _{CBO}	V _{CB} =-40V, I _E =0		-100	
Emitter cut-off current	I _{EBO}	V _{EB} =-3V, I _C =0		-100	
DC current gain	h _{FE} (1)	V _{CE} =-1V, I _C =-50mA	120	400	
	h _{FE} (2)	V _{CE} =-1V, I _C =-500mA	50		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-500mA, I _B =-50mA		-0.60	V
Collector-emitter saturation voltage	V _{BE(sat)}	I _C =-500mA, I _B =-50mA		-1.20	
Transition frequency	f _T	V _{CE} =-6V, I _C =-20mA, f=30MHz	150		MHz

Classification OF _{h_{FE}(2)}

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

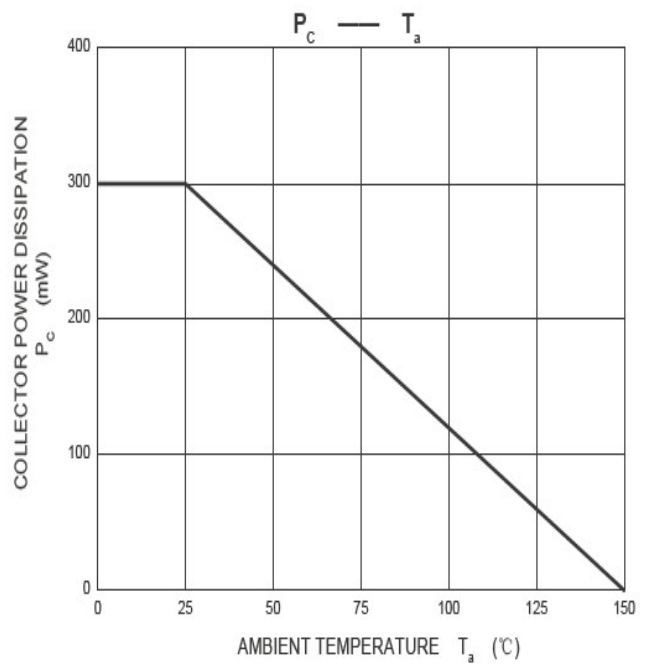
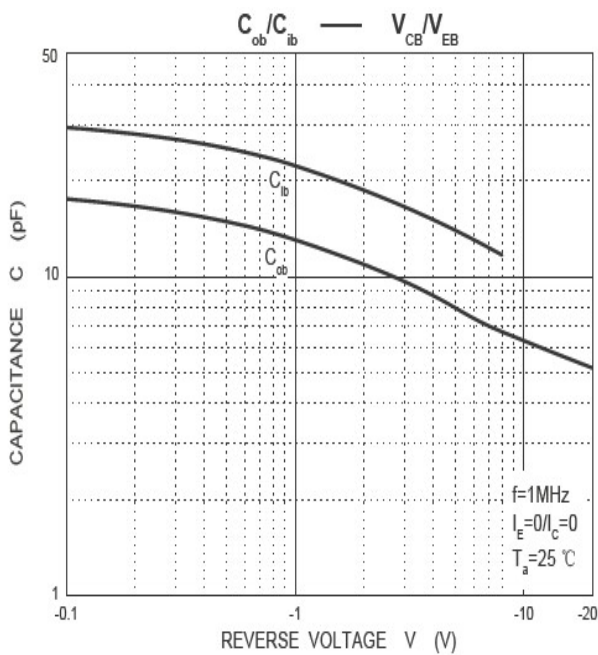
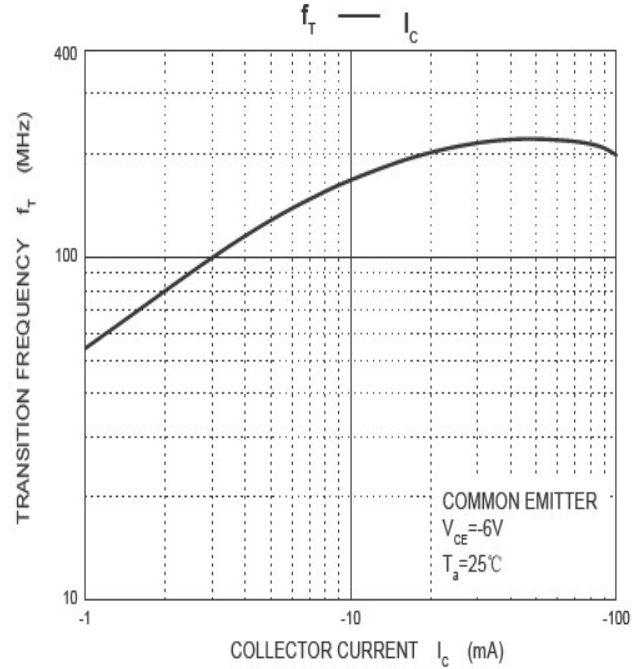
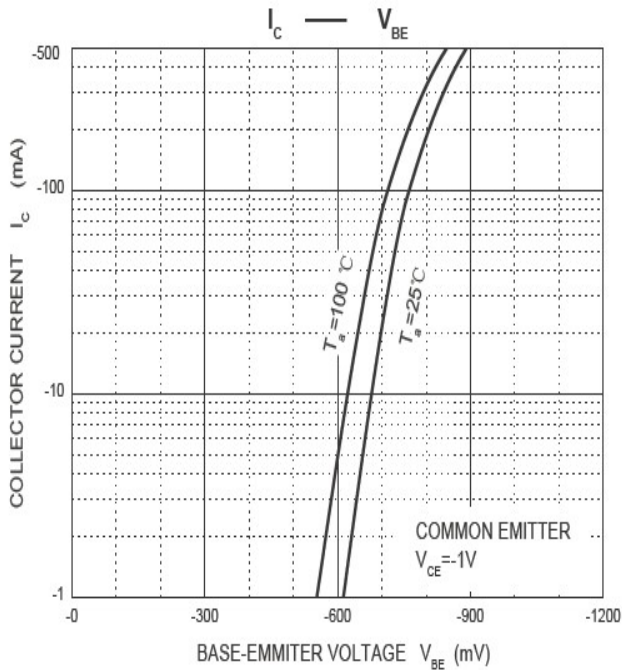
Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)



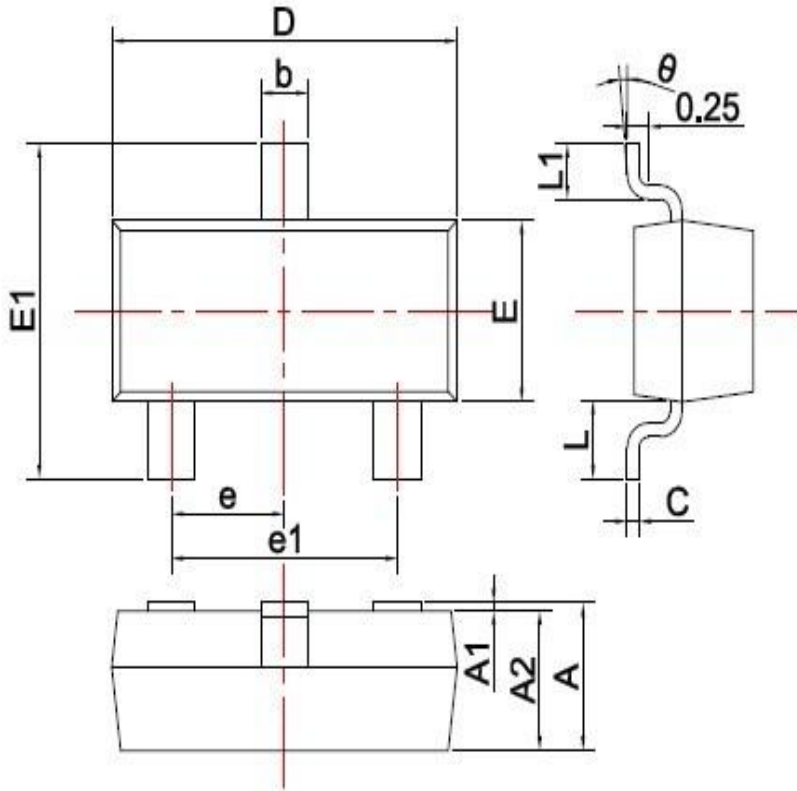
Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

in inches (millimeters)



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.02.16	First issue

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