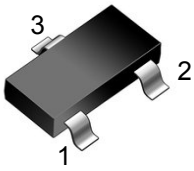
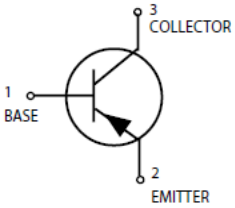
SOT-23





MARKING: 2TY

Features

As complementary type the NPN transistor S8050 is recommended
Collector current : I =0.5A
Epitaxial planar die construction
Halogen free and RoHS compliant

Mechanical Data

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

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel,7" reel	3000	EIA-481-1

Maximum Ratings & Thermal Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified.)

Parameters	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
Junction Temperature	T_j	150	℃
Storage Temperature	Tstg	-55-+150	℃
Thermal resistance From junction to ambient	$R_{\theta JA}$	417	℃/W

Electrical Characteristics

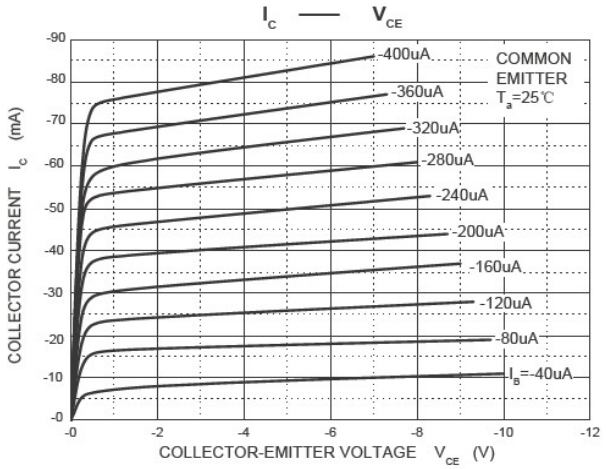
(Ratings at 25℃ ambient temperature unless otherwise specified).

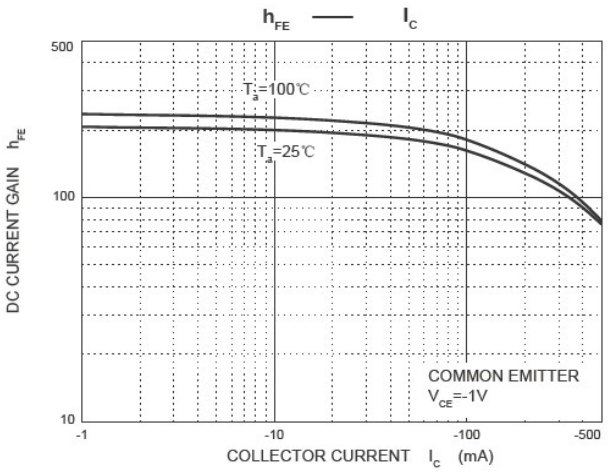
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = -100μA, I_E=0	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C =-1mA, I_B=0	-25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100μA, I_C=0	-5		V
Collector cut-off current	I_{CBO}	V_{CB}= -40V, I_E=0		-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= -3V, I_C=0		-0.1	μA
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		-0.6	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C=-500mA, I_B= -50mA		-1.2	V
Transition frequency	f_T	V_{CE}= -6V, I_C= -20mA f=30MHz	150		MHz

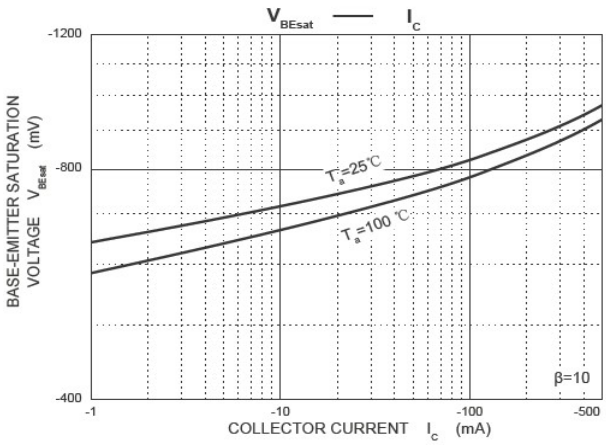
CLASSIFICATION OF $h_{FE(1)}$

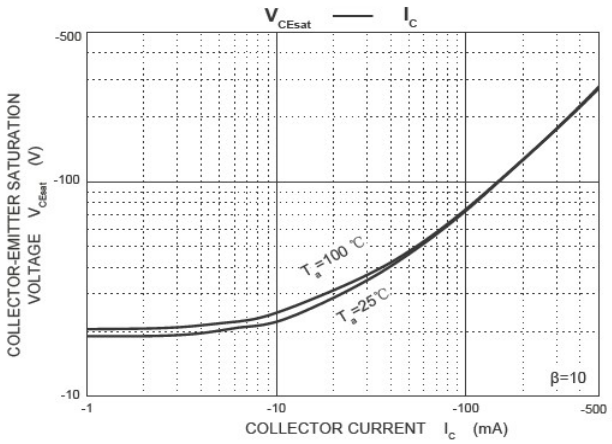
RANK	L	H	J
RANGE	120-200	200-350	300-400

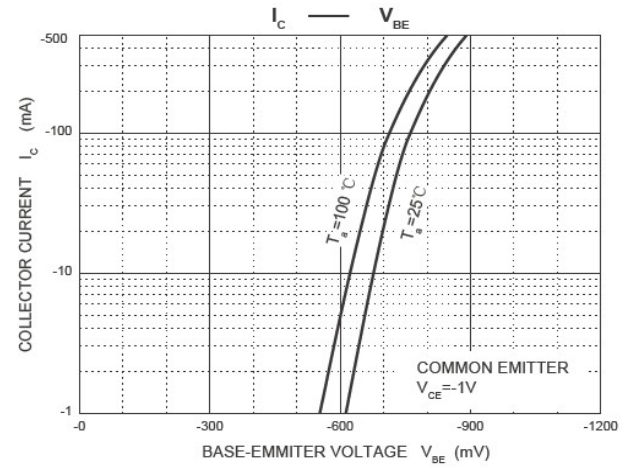
Ratings and Characteristic Curves

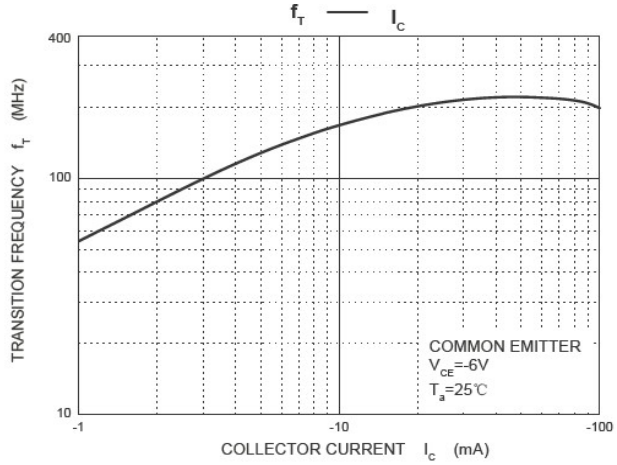




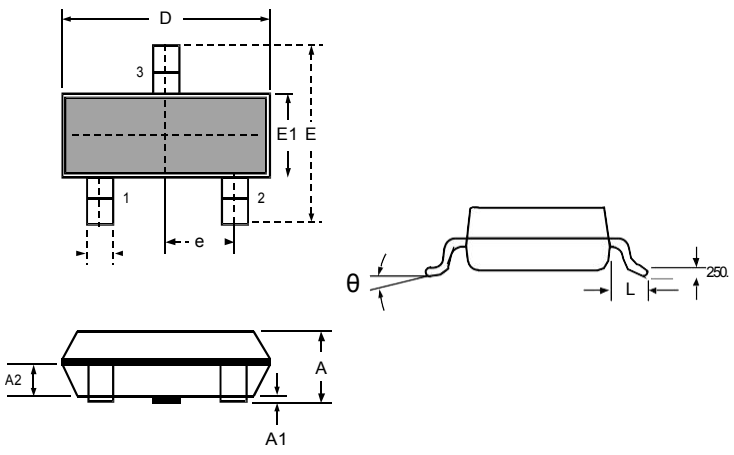








Package Outline Dimensions: SOT-23



DIMENSIONS

SYMBOL	MILLIMETER		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
D	2.800	3.000	0.110	0.118
b	0.300	0.500	0.012	0.020
E	2.250	2.550	0.089	0.100
E1	1.200	1.400	0.047	0.055
e	0.950 BSC		0.037 BSC	
L	0.300	0.500	0.012	0.020
θ	0	8°	0	8°