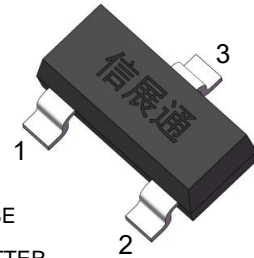


**FEATURES**

- Complimentary to S8050
- Collector Current:  $I_C=0.5A$

**MARKING: 2TY****MAXIMUM RATINGS ( $T_a=25^\circ C$  unless otherwise noted)**

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-25	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-0.5	A
$P_C$	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	$^\circ C/W$
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	$^\circ C$

**SOT-23**

1. BASE
2. EMITTER
3. COLLECTOR

**ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$  unless otherwise specified)**

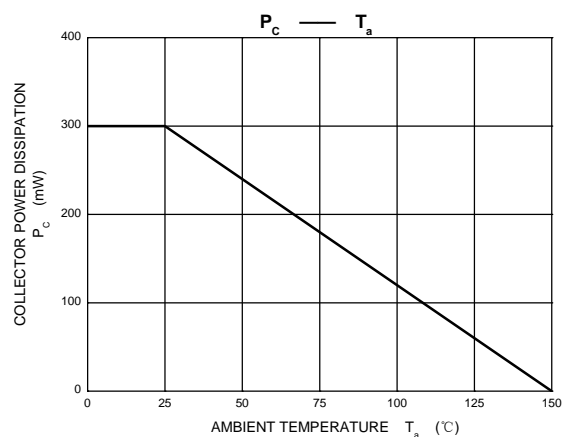
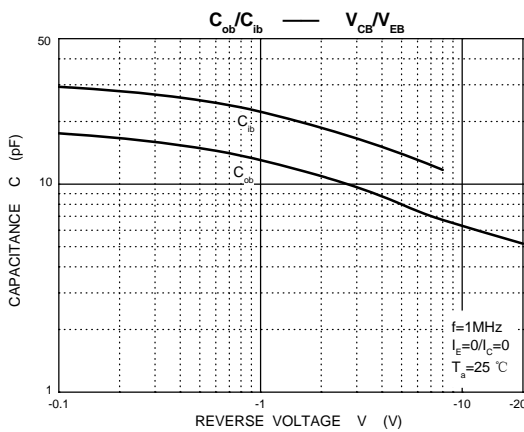
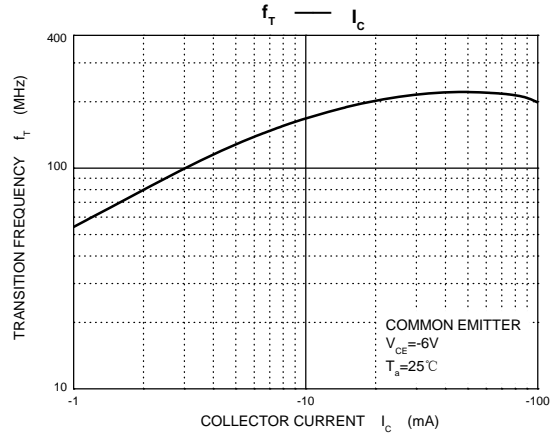
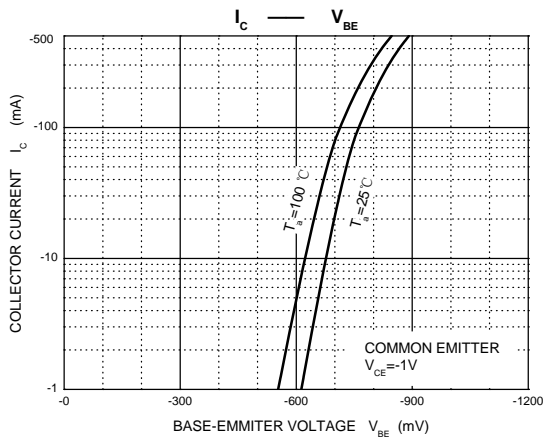
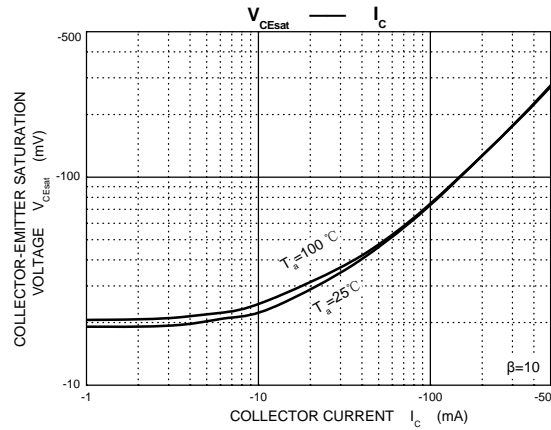
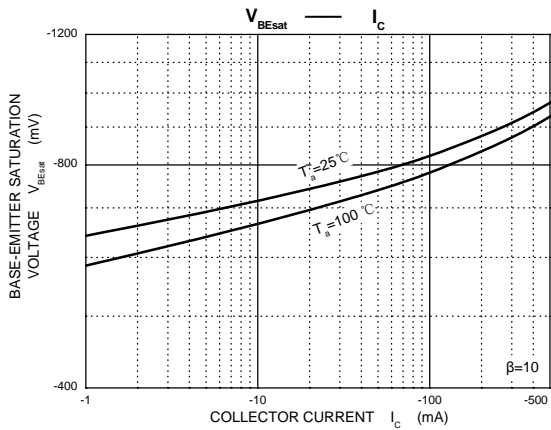
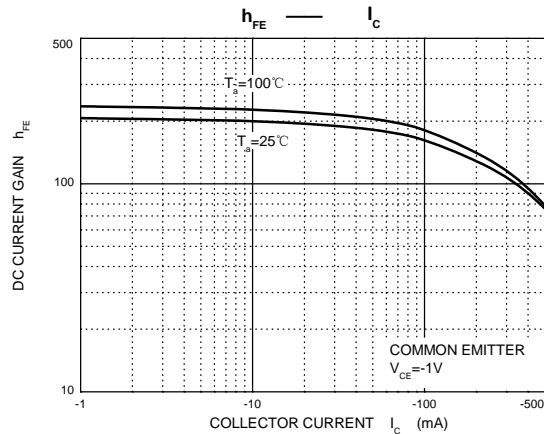
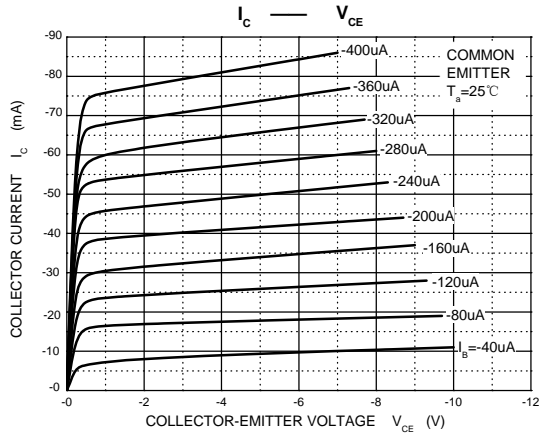
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-0.1mA, I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-40V, I_E=0$			-100	nA
Collector cut-off current	$I_{CEO}$	$V_{CE}=-20V, I_B=0$			-100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-3V, I_C=0$			-100	nA
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	$V_{CE(sat)}$	$I_C=-500mA, I_B=-50mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-500mA, I_B=-50mA$			-1.2	V
Transition frequency	$f_T$	$V_{CE}=-10V, I_C=-50mA, f=30MHz$	150			MHz

**CLASSIFICATION OF  $h_{FE(1)}$** 

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

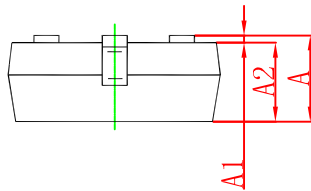
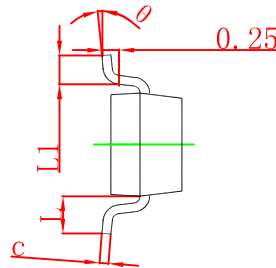
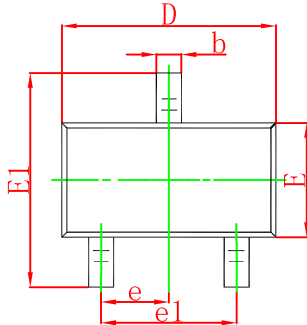


Typical Characteristics



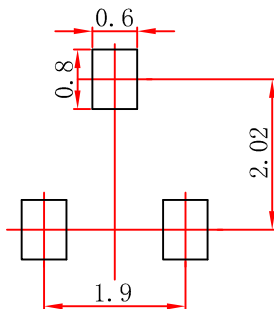


### SOT-23 Package Outline Dimensions



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
θ	0°	8°	0°	8°

### SOT-23 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05mm.
3. The pad layout is for reference purposes only.