

SOT-23 Plastic-Encapsulate Transistors

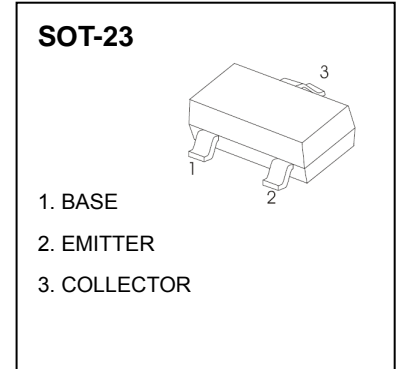
FEATURES

- Complimentary to TKS8050
- Collector current: $I_C=0.5A$

MARKING : 2TY

MAXIMUM RATINGS ($T_a=25^\circ C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.5	A
P_C	Collector Power Dissipation	0.3	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55-150	$^\circ C$

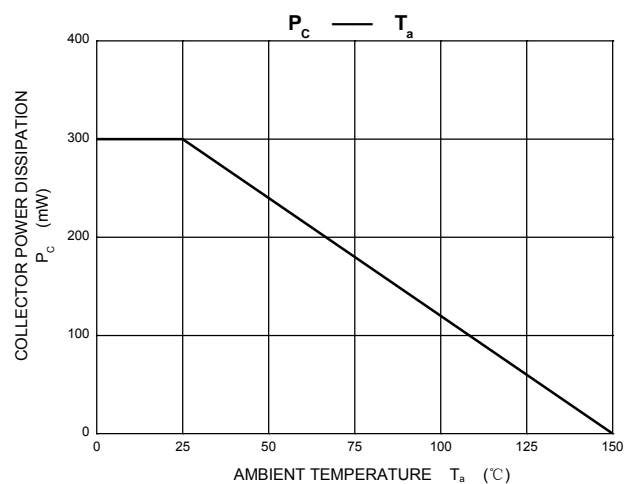
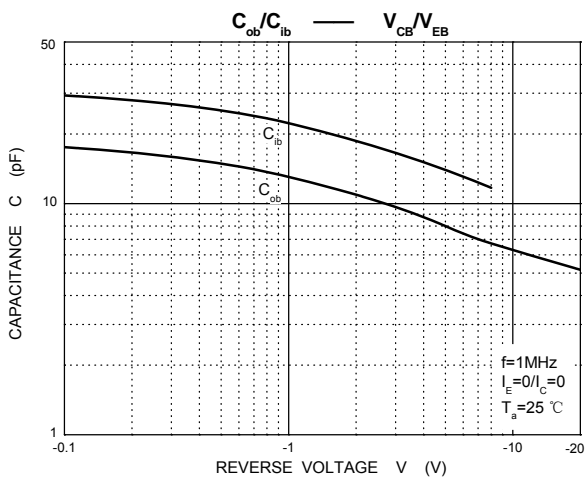
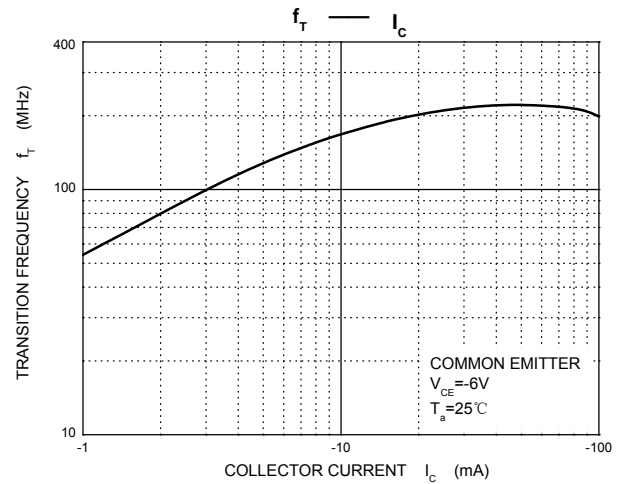
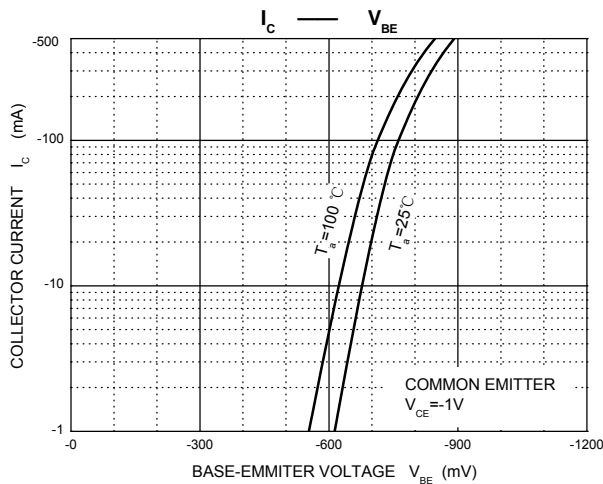
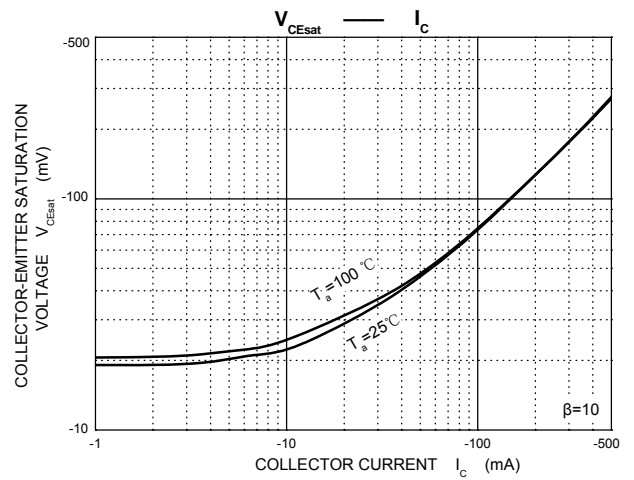
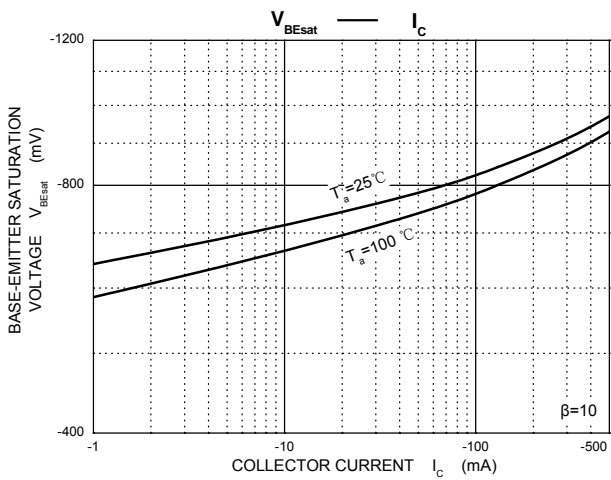
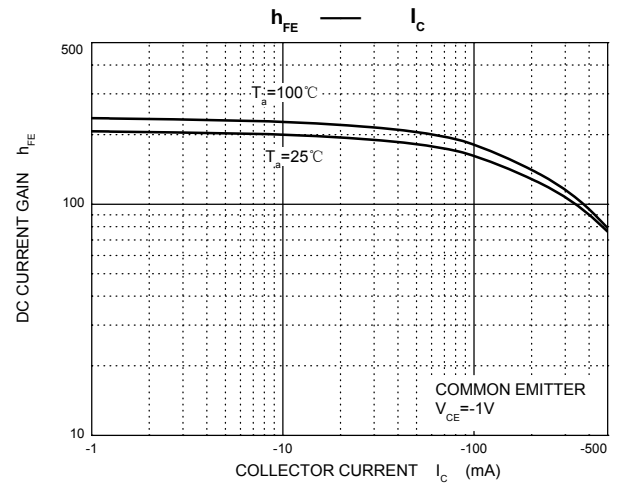
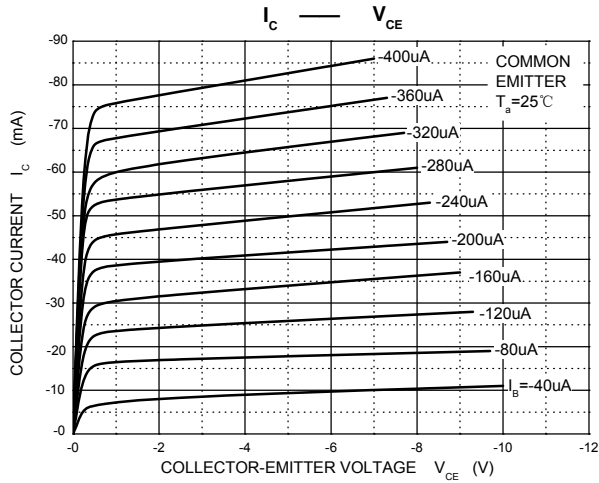


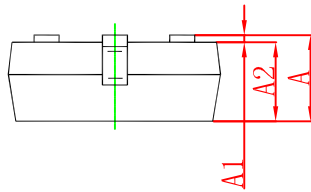
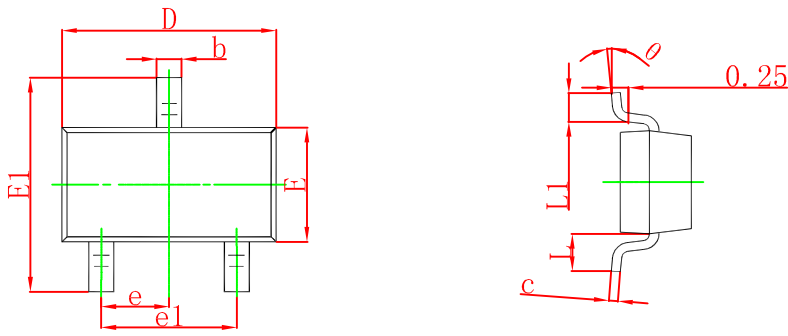
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E=0$	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B=0$	-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}	$V_{CB} = -40V, I_E=0$		-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -20V, I_B=0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3V, I_C=0$		-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -50mA$	200	350	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -500mA$	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 $h_{FE(1)}$

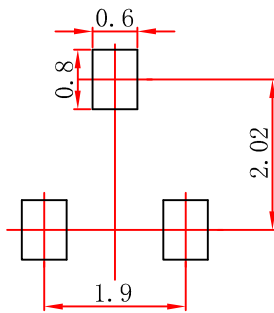
Range	200-350
MARKING	2TY





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: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.