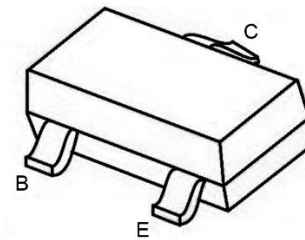


FEATURE

- NPN Transistor
- Collector Current: $I_C=1.5A$
- MARKING:Y1



SOT-23

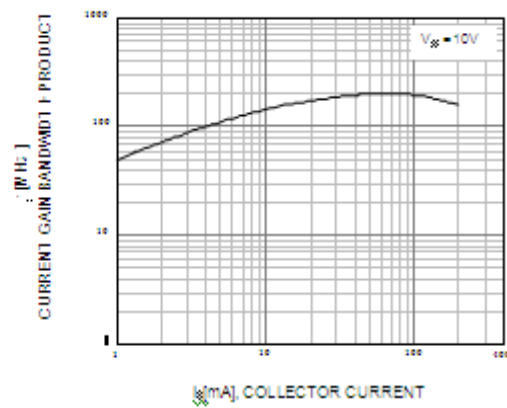
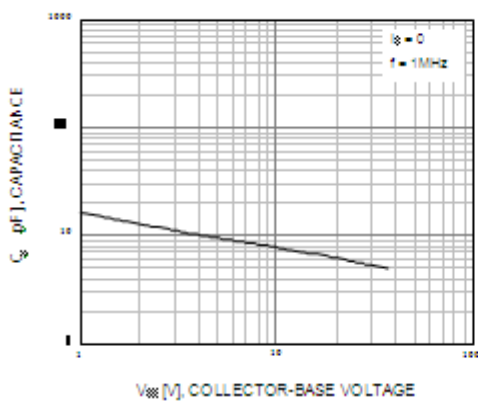
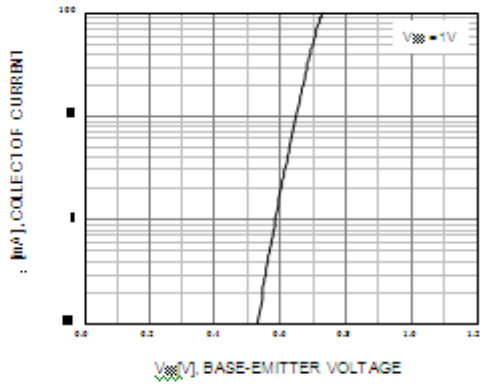
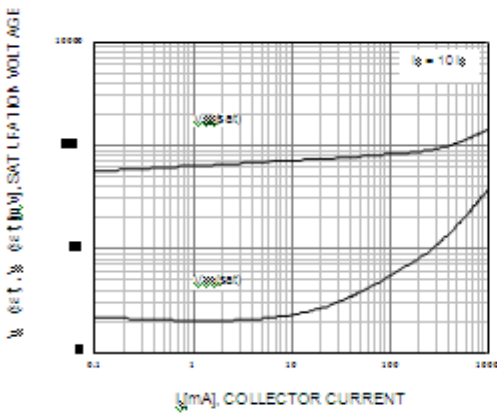
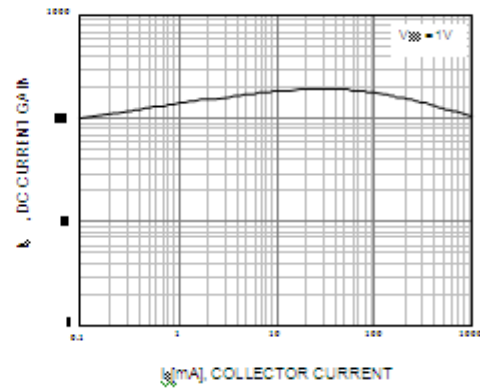
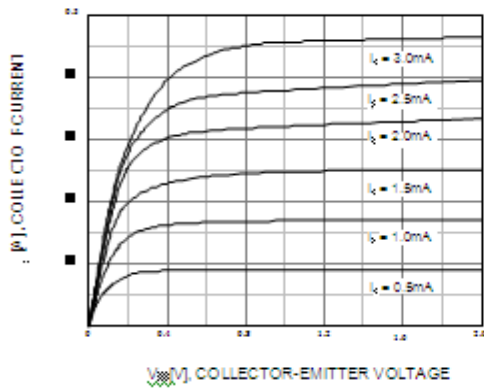
Absolute maximum ratings ($T_a=25^\circ C$ unless otherwise noted)

Symbol	Parameter	Value	Units
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	1.5	A
P_C	Collector Power Dissipation	0.3	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55-150	$^\circ C$

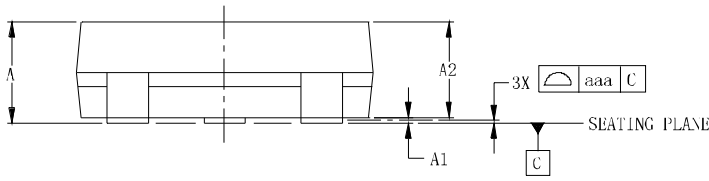
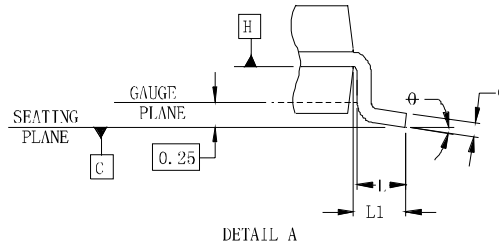
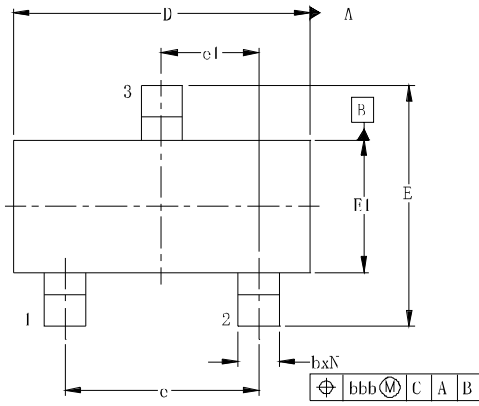
Electrical characteristics ($T_A=25^\circ C$, unless otherwise noted)

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}	$V_{CB}=40V, I_E=0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CB}=20V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=100mA$	200		350	
	$h_{FE(2)}$	$V_{CE}=1V, I_C=800mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=800mA, I_B=80mA$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=800mA, I_B=80mA$			1.2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=50mA$ $f=30MHz$	100			MHz

Typical Characteristics

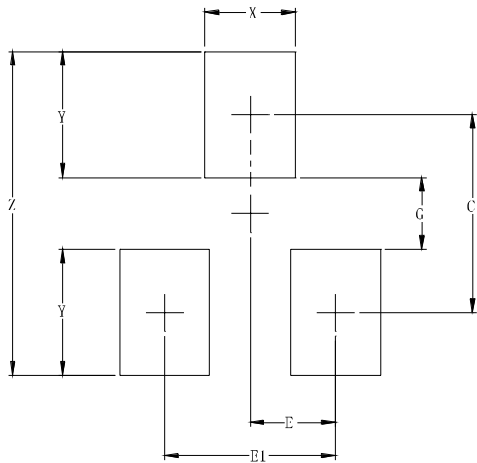


SOT-23 Package Outline Drawing



DIM	DIMENSIONS					
	INCHES			MILLIMETERS		
	MTN	NOM	MAX	MTN	NOM	MAX
A	.035	—	.044	0.89	—	1.12
A1	.000	—	.004	0.01	—	0.10
A2	.035	.037	.040	0.88	0.95	1.02
b	.012	—	.020	0.30	—	0.51
c	.003	—	.007	0.08	—	0.18
D	.110	.114	.120	2.80	2.90	3.04
E	.082	.093	.104	2.10	2.37	2.64
E1	.047	.051	.055	1.20	1.30	1.40
e	.075			1.90 BSC		
e1	.037			0.95 BSC		
L	.015	.020	.024	0.40	0.50	0.60
L1	.022			(0.55)		
N	3			3		
θ	0°	—	8°	0°	—	8°
aaa	.001			0.10		
bbb	.008			0.20		

Suggested Land Pattern



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	.087	2.20
E	.037	0.95
E1	.075	1.90
G	.031	0.80
X	.039	1.00
Y	.055	1.40
Z	.141	3.60