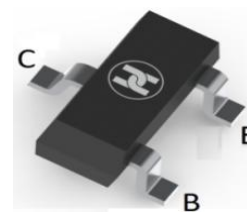
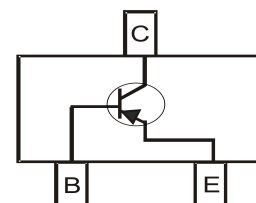


PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR
FEATURES

- Surface Mount device
- Excellent h_{FE} Linearity
- Low Collector-emitter saturation voltage


SOT-23
MECHANICAL DATA

- Case: SOT-23
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.008 grams (approximate)


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

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-500	V
Collector-Emitter Voltage	V_{CEO}	-500	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-500	mA
Continuous Collector Current	I_C	-150	mA
Power Dissipation	P_{tot}	500	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^\circ\text{C}$

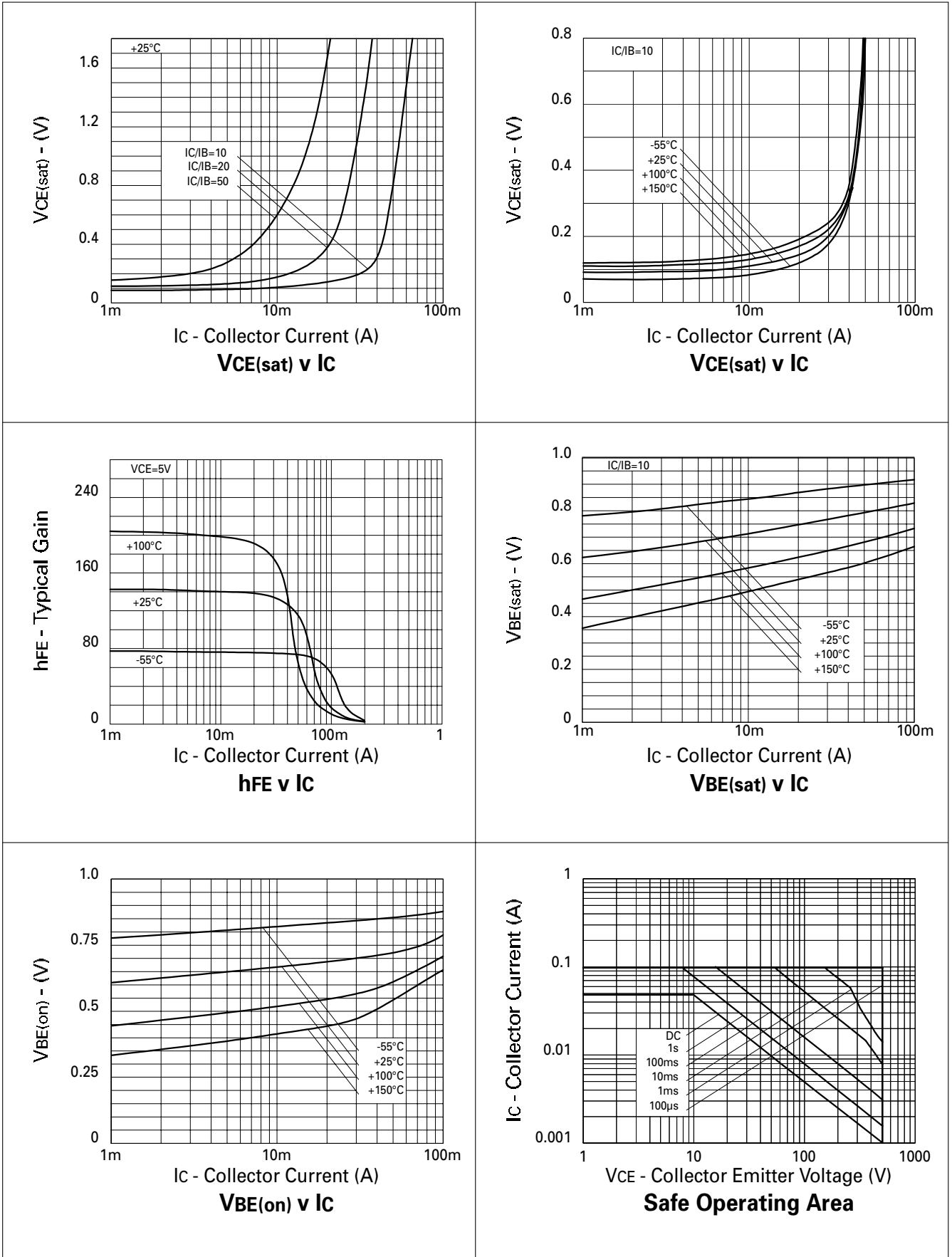
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

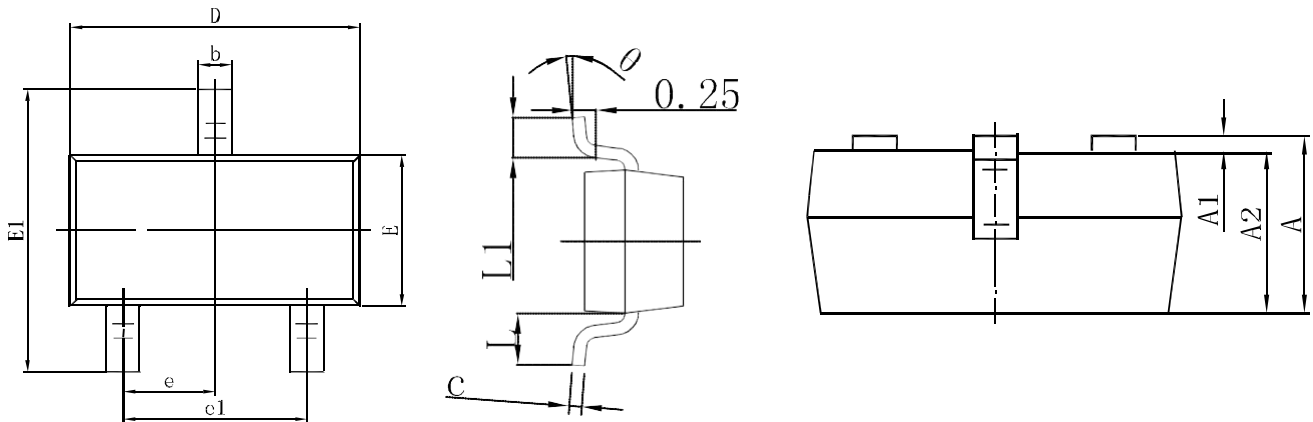
PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-500		V	$I_C = -100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{BR(CEO)}$	-500		V	$I_C = -10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E = -100\mu\text{A}$
Collector Cut-Off Current	$I_{CBO}; I_{CES}$		-100	nA	$V_{CB} = -500\text{V}; V_{CE} = -500\text{V}$
Emitter Cut-Off Current	I_{EBO}		-100	nA	$V_{EB} = -5\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.2 -0.5	V	$I_C = -20\text{mA}, I_B = -2\text{mA}^*$ $I_C = -50\text{mA}, I_B = -10\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.9	V	$I_C = -50\text{mA}, I_B = -10\text{mA}^*$
Base-Emitter Turn On Voltage	$V_{BE(on)}$		-0.9	V	$I_C = -50\text{mA}, V_{CE} = -10\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	100 80 15 typ	300 300		$I_C = -1\text{mA}, V_{CE} = -10\text{V}$ $I_C = -50\text{mA}, V_{CE} = -10\text{V}^*$ $I_C = -100\text{mA}, V_{CE} = -10\text{V}^*$
Transition Frequency	f_T	60		MHz	$V_{CE} = -20\text{V}, I_C = -10\text{mA}, f = 50\text{MHz}$
Output Capacitance	C_{obo}		8	pF	$V_{CB} = -20\text{V}, f = 1\text{MHz}$
Switching times	t_{on} t_{off}	110 typ. 1.5 typ.		ns μs	$V_{CE} = -100\text{V}, I_C = -50\text{mA}, I_{B1} = -5\text{mA}, I_{B2} = 10\text{mA}$

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$

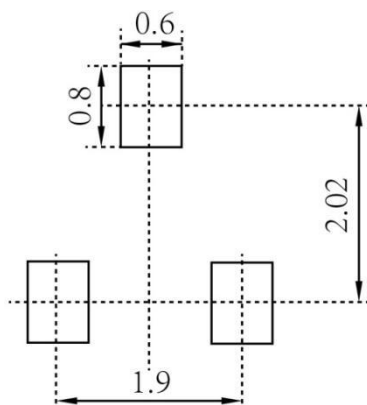
PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

Typical Characteristics

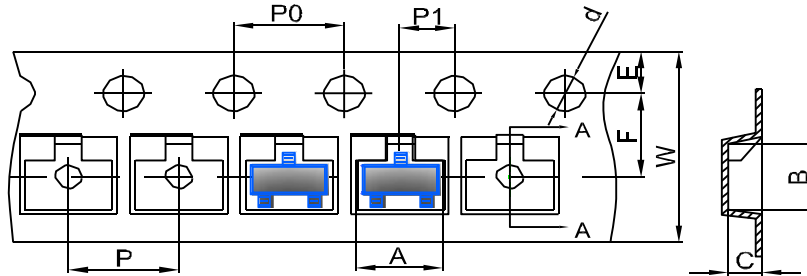


PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR
SOT-23 Package Outline Dimensions


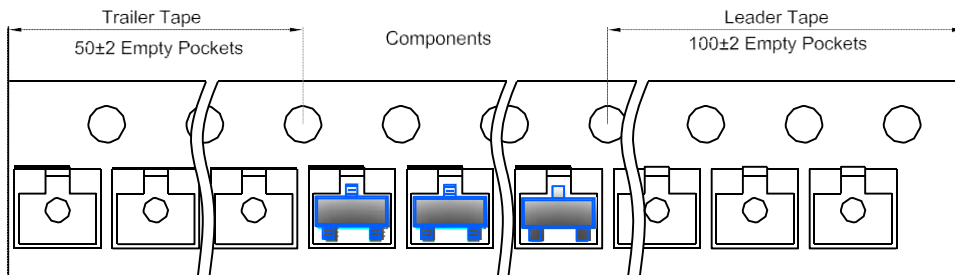
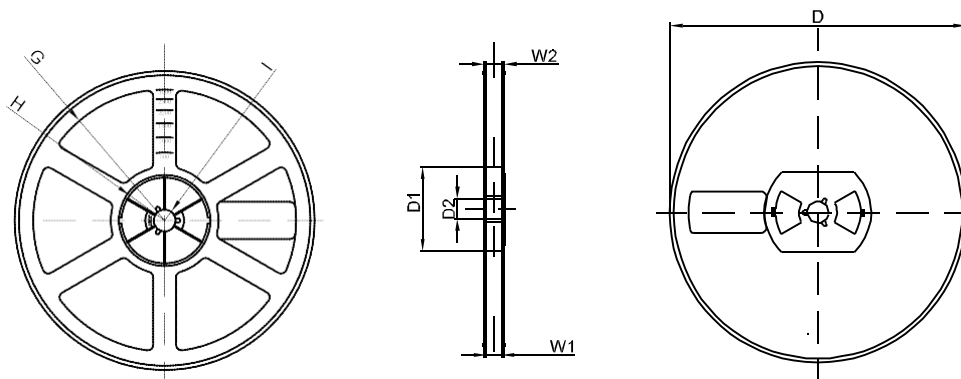
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		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: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR
SOT-23 Tape and Reel
SOT-23 Embossed Carrier Tape


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SOT-23 Tape Leader and Trailer

SOT-23 Reel


DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	9.50	12.30
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1