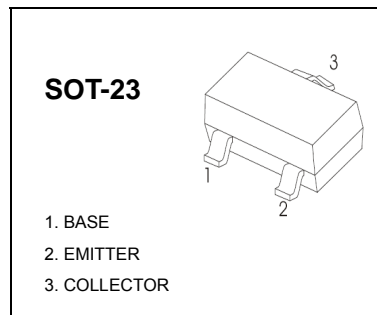


■ Features

- Low current (max. 100 mA)
- Low voltage (max. 45 V).



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
collector-base voltage	VCBO	30	V
		50	V
collector-emitter voltage	VCEO	30	V
		45	V
emitter-base voltage	VEBO	5	V
collector current (DC)	IC	100	mA
peak collector current	ICM	200	mA
peak base current	IBM	200	mA
total power dissipation $T_{amb} = 25^{\circ}C$ *	Ptot	250	mW
storage temperature	Tstg	-65 to 150	°C
junction temperature	Tj	150	°C
operating ambient temperature	Tamb	-65 to 150	°C
thermal resistance from junction to ambient *	Rth(j-a)	500	K/W

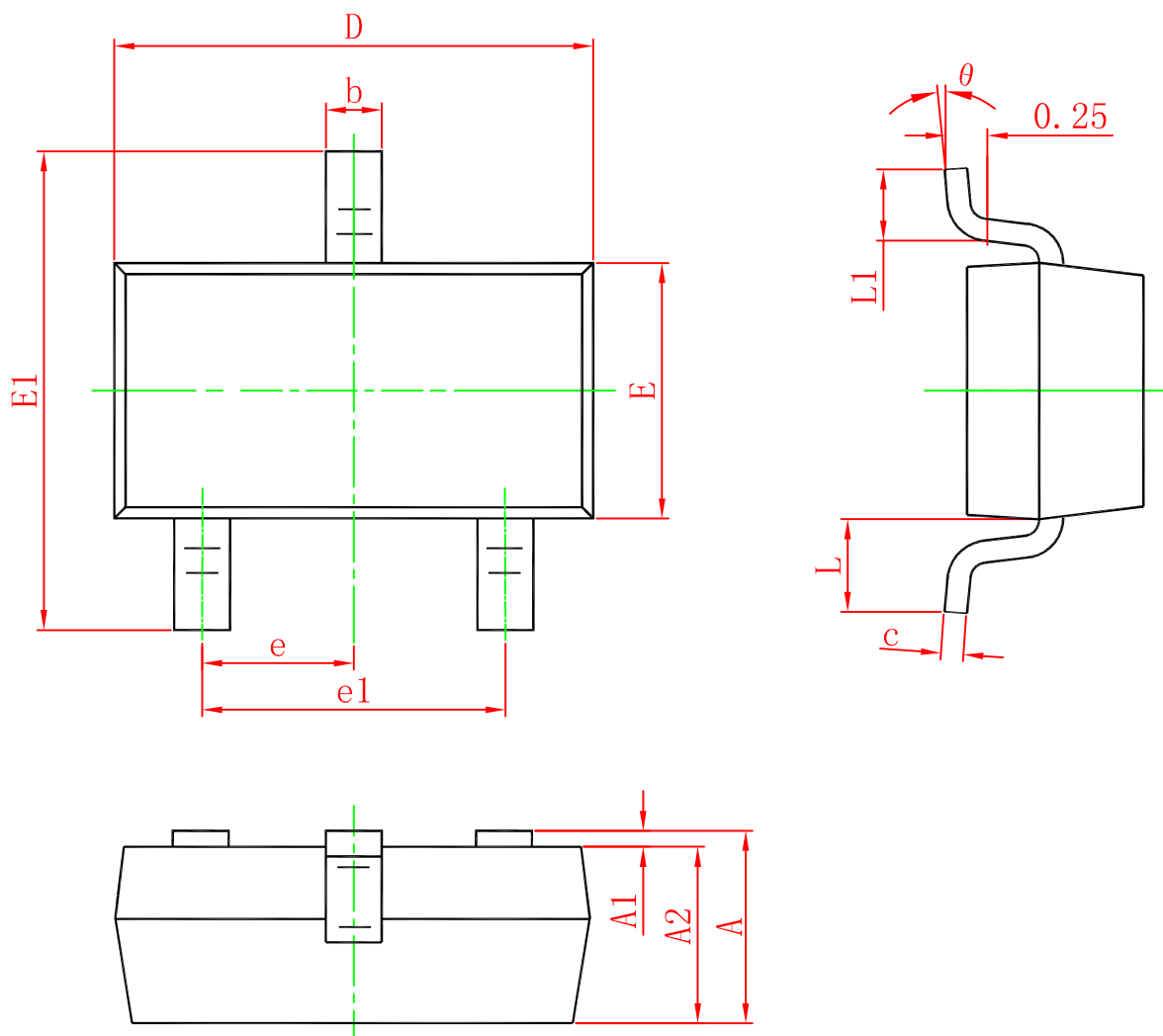
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
collector cut-off current	I <sub>CBO</sub>	I <sub>E</sub> = 0; V <sub>CB</sub> = 30 V			15	nA
		I <sub>E</sub> = 0; V <sub>CB</sub> = 30 V; T <sub>j</sub> = 150 °C			5	μA
emitter cut-off current	I <sub>EBO</sub>	I <sub>C</sub> = 0; V <sub>EB</sub> = 5 V			100	nA
DC current gain	h <sub>FE</sub>	I <sub>C</sub> = 10 μA; V <sub>CE</sub> = 5 V;		240		
				450		
DC current gain		I <sub>C</sub> = 2 mA; V <sub>CE</sub> = 5 V;	200	290	450	
				420	520	800
collector-emitter saturation voltage	V <sub>CEsat</sub>	I <sub>C</sub> = 10 mA; I <sub>B</sub> = 0.5 mA		90	250	mV
		I <sub>C</sub> = 100 mA; I <sub>B</sub> = 5 mA		200	600	mV
base-emitter saturation voltage	V <sub>BEsat</sub>	I <sub>C</sub> = 10 mA; I <sub>B</sub> = 0.5 mA; *1		700		mV
		I <sub>C</sub> = 100 mA; I <sub>B</sub> = 5 mA; *1		900		mV
base-emitter voltage	V <sub>BE</sub>	I <sub>C</sub> = 2 mA; V <sub>CE</sub> = 5 V; *2	580	660	700	mV
		I <sub>C</sub> = 10 mA; V <sub>CE</sub> = 5 V; *2			770	mV
collector capacitance	C <sub>c</sub>	I <sub>E</sub> = i <sub>e</sub> = 0; V <sub>CB</sub> = 10 V; f = 1 MHz		2.5		pF
emitter capacitance	C <sub>e</sub>	I <sub>C</sub> = i <sub>c</sub> = 0; V <sub>EB</sub> = 500 mV; f = 1 MHz		11		pF
transition frequency	f <sub>T</sub>	I <sub>C</sub> = 10 mA; V <sub>CE</sub> = 5 V; f = 100 MHz	100			MHz
noise figure	F	I <sub>C</sub> = 200 μA; V <sub>CE</sub> = 5 V; R <sub>S</sub> = 2 kΩ, f = 10 Hz to 15.7 kHz			4	dB
		I <sub>C</sub> = 200 μA; V <sub>CE</sub> = 5 V; R <sub>S</sub> = 2 kΩ, f = 1 kHz; B = 200 Hz			4	dB

\*1 V<sub>BEsat</sub> decreases by about 1.7 mV/K with increasing temperature.

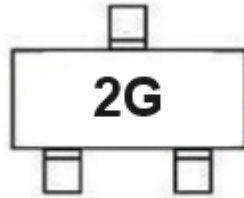
\*2 V<sub>BE</sub> decreases by about 2 mV/K with increasing temperature.

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°

**Marking**



**Ordering information**

Order code	Package	Baseqty	Deliverymode
UMW BC850C	SOT-23	3000	Tape and reel

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Bipolar Transistors - BJT category](#):*

*Click to view products by [Youtai manufacturer](#):*

Other Similar products are found below :

[BC559C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [NJVMJD148T4G](#) [NTE16](#) [NTE195A](#) [IMX9T110](#) [2N4401-A](#) [2N4403](#) [2N6728](#)  
[2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [FMC5AT148](#) [2N2369ADCSM](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC4618TLN](#) [CPH6501-](#)  
[TL-E](#) [MCH4021-TL-E](#) [Jantx2N5416](#) [US6T6TR](#) [BAX18/A52R](#) [BC556/112](#) [IMZ2AT108](#) [MMST8098T146](#) [UMX21NTR](#) [MCH6102-TL-E](#)  
[TTA1452B,S4X\(S](#) [2N3879](#) [NTE13](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [JANTX2N2920L](#) [JANTX2N3735](#) [JANSR2N2222AUB](#)  
[CMLT3946EG TR](#) [SNSS40600CF8T1G](#) [CMLT3906EG TR](#) [GRP-DATA-JANS2N2907AUB](#) [GRP-DATA-JANS2N2222AUA](#)  
[MMDT3946FL3-7](#) [2N4240](#) [JANS2N3019](#) [MSB30KH-13](#) [2N2221AUB](#)