

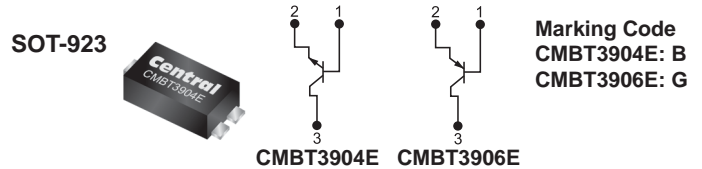
PRODUCT BRIEF

CMBT3904E (NPN) CMBT3906E (PNP)

40V, 200mA

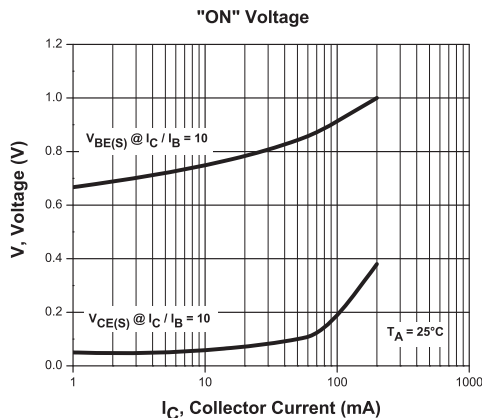
NPN and PNP General Purpose Low $V_{CE(SAT)}$ Small Signal Transistors in the SOT-923

The CMBT3904E and the CMBT3906E are 40V, 200mA NPN and PNP transistors with an exceptionally low $V_{CE(SAT)}$ specification and packaged in the space saving SOT-923 surface mount case. This energy efficient device is ideal for portable battery powered electronic products and suitable for signal switching, amplification, voltage clamping, and circuit protection applications.



features

- Very small package size
- 200mA Collector Current
- RoHS compliant/ Pb Free
- Low $V_{CE(SAT)}$ (0.1V TYP @ 50mA)
- Miniature 1.10 x 0.65 x 0.41mm ultra low height profile FEMTOmini™ Surface Mount Package



applications

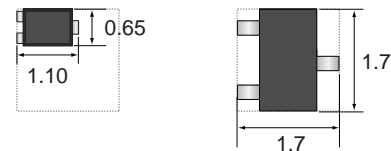
- DC / DC Converters
- Voltage Clamping
- Protection Circuits
- Battery powered applications including: Cell Phones, Digital Cameras, Pagers, PDAs, Laptop Computers, etc.

package comparison

surface space

Dimensions shown are maximum values in mm.

The SOT-923 utilizes **75%** less space than the SOT-523



profile

The SOT-923 has a **47%** lower profile than the SOT-523



samples and literature

samples

To order samples of these devices visit:
www.centrasemi.com/info/CMBT390

literature



Order your selection guides today
visit: web.centrasemi.com/search/sample.php

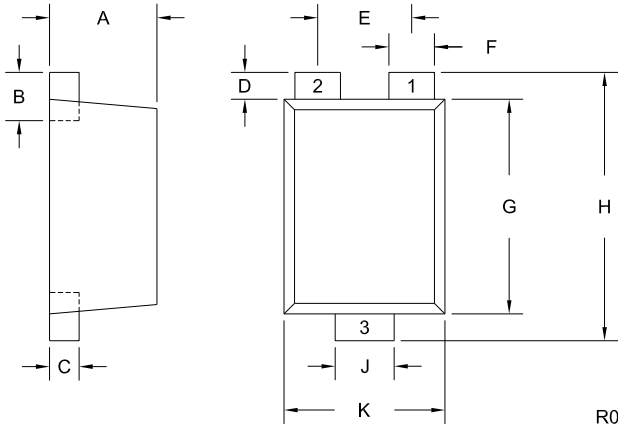
selection guide

Part No.	Electrical Characteristics											Thermal Characteristics					
	BV_{CBO}	BV_{CEO}	BV_{EBO}	I_{CEV} @ V_{CE}		h_{FE}		$V_{CE(SAT)}$ @ I_C		C_{ob}	f_T	NF	P_D	T_J, T_{stg}	θ_{JA}		
	(V) MIN	(V) MIN	(V) MIN	(nA) MAX	(V) MAX	MIN	MAX	(V) MAX	(mA) MAX	(pF) MAX	(MHz) MIN	(dB) MAX	(mW)	(°C) MAX	(°C/W) MAX		
CMBT3904E	60	40	6.0	50	30	100	300	1.0	10	0.1 TYP	50	4.0	300	4.0	100	-65 to +150	1250
CMBT3906E										0.2	50						

CMBT3904E (NPN) CMBT3906E (PNP)

40V, 200mA NPN and PNP General Purpose Low $V_{CE(SAT)}$ Small Signal Transistors in the SOT-923

Mechanical Drawing



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.015	0.016	0.39	0.41
B	0.004	0.010	0.10	0.26
C	0.003	0.006	0.08	0.14
D	0.002	0.006	0.05	0.15
E	0.014		0.35	
F	0.005	0.009	0.12	0.22
G	0.030	0.033	0.75	0.85
H	0.035	0.043	0.90	1.10
J	0.007	0.011	0.17	0.27
K	0.022	0.026	0.55	0.65

SOT-923 (REV: R0)

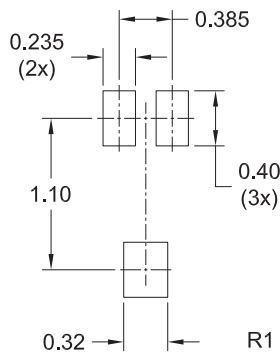
LEAD CODE:

- 1) BASE
- 2) EMITTER
- 3) COLLECTOR

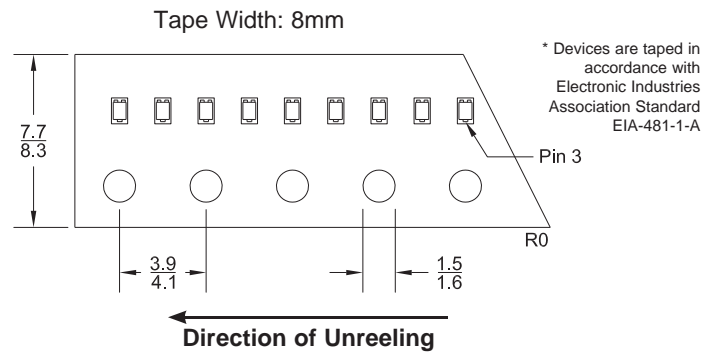
MARKING CODE

CMBT3904E: B
CMBT3906E: G

Mounting Pad Geometry (Dimensions in mm)



Tape Dimensions and Orientation (Dimensions in mm)



Packaging Base

7" Reel = 8,000 pcs. (add TR suffix to part number)

Reel Packing Information

Reel Size	Reels per Box (Maximum)	Parts per Box (Maximum)	Box Dimensions		Shipping Weight (Max.)	
			INCH	CM	LB	KG
7"	3	24,000	8x7x2	20x18x5	1	1
	9	72,000	9x9x5	23x23x13	3	2
	18	144,000	9x9x9	23x23x23	6	3
	40	320,000	21x9x9	53x23x23	13	6
	108	864,000	27x9x17	69x23x43	34	16

Sample devices available upon request. To order samples of this device visit: www.centrasemi.com/info/CMBT390



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