

General Purpose SMD® PNP Transistors

Description

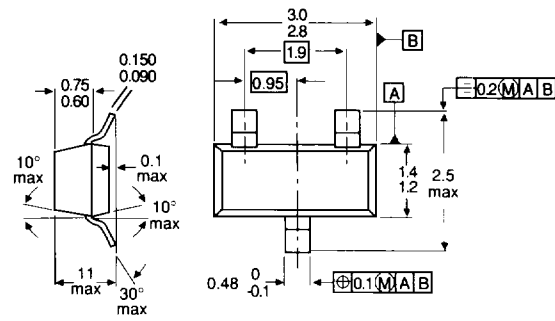
Philips Components general purpose transistors combine the highest quality standards with state-of-the-art production equipment to fulfill the need for generic, low-cost devices. These transistors provide a broad selection of current ratings, gains and saturation voltages to address a variety of circuit applications. They are offered in a choice of surface mount packages, providing the designer with alternatives for different power requirements, circuit board substrate materials, and assembly processing techniques.

Features

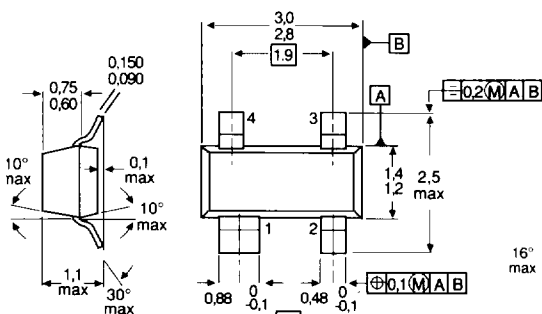
- Continuous current ratings up to 1A
- Complementary NPN and PNP devices
- SOT-89 for medium power applications
- SOT-223 for 1W power at 60°C on printed circuit boards

Mechanical Data

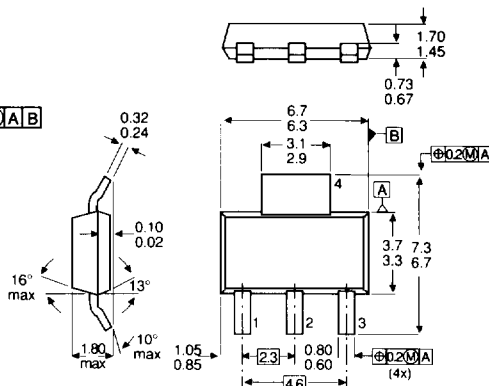
(Dimensions in mm)



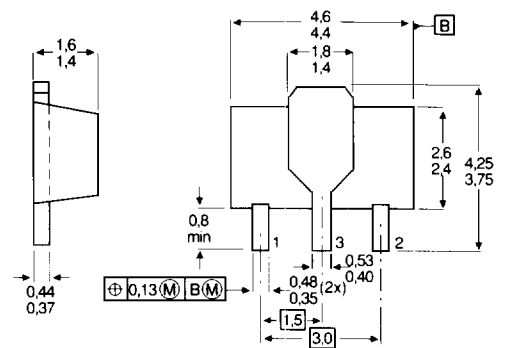
SOT-23 TOP VIEW



SOT-143 TOP VIEW



SOT-223

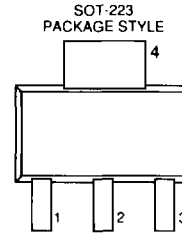
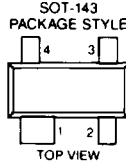
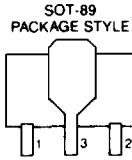
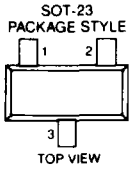


SOT-89 BOTTOM VIEW

Electrical Specifications

Type	Package	Ratings			h_{FE}		$V_{CE(sat)}$		f_T	Pinout
		V_{CEO} V	V_{CBO} V	I_C mA	min./max. at I_C/V_{CE} mA/V		max. at I_C/I_B mA/mA		typ. MHz	
BC869	SOT-89	20	25	1000	85/375	500/1	0.50	100/100	60	F
BCP69	SOT-223	20	25	1000	85/375	500/1	0.50	1000/100	60	R
BCX18	SOT-23	25	—	500	100/600	100/1	0.62	500/50	100	F
BC808-16	SOT-23	25	30	500	100/250	100/1	0.70	500/50	100	F
BC808-25	SOT-23	25	30	500	160/400	100/1	0.7	500/500	100	F
BC808-40	SOT-23	25	30	500	250/600	100/1	0.7	500/500	100	F
BC858A	SOT-23	30	30	100	125/250	2/5	0.30	10/0.5	150	F
BC858B	SOT-23	30	30	100	220/475	2/5	0.3	10/0.5	150	F
BC858C	SOT-23	30	30	100	420/800	2/5	0.3	10/0.5	150	F
BCV62	SOT-143	30	30	100	100/800	2/5	0.30	10/0.5	150	G
BCW29	SOT-23	32	32	100	120/260	2/5	0.30	10/0.5	150	F
BCW30	SOT-23	32	32	100	215/500	2/5	0.30	10/0.5	150	F
BCW61A	SOT-23	32	32	200	120/200	2/5	0.25	10/0.5	180	F
BCW61B	SOT-23	32	32	200	180/310	2/5	0.25	10/0.5	180	F
BCW61C	SOT-23	32	32	200	250/460	2/5	0.25	10/0.5	180	F
BCW61D	SOT-23	32	32	200	380/630	2/5	0.25	10/0.5	180	F
PMBTA70	SOT-23	40	40	100	40/100	5/10	0.25	10/1	> 125	F
PMBT3906	SOT-23	40	40	200	100/300	10/1	0.25	10/1	> 250	F
PZT3906	SOT-223	40	40	200	100/300	10/1	0.25	10/1	> 250	R
PZT4403	SOT-223	40	40	600	100/300	150/2	0.75	500/50	200	R
PMBT4403	SOT-23	40	40	600	100/300	150/2	0.40	150/5	> 200	F
PXT3906	SOT-89	40	40	200	100/300	10/1	0.25	10/1	> 250	F
PXT4403	SOT-89	40	40	600	100/300	150/2	0.4	150/15	> 200	F
PMBT2907	SOT-23	40	60	600	100/300	150/10	0.4	150/15	> 200	F
BCP51	SOT-223	45	45	1000	40/250	150/2	0.50	500/50	50	R
BCX17	SOT-23	45	—	500	100/600	100/1	0.62	500/50	100	F
BCX51	SOT-89	45	45	1000	40/250	150/2	0.50	500/50	50	F
BCX71G	SOT-23	45	45	200	120/220	2/5	0.25	10/0.5	180	F
BCX71H	SOT-23	45	45	200	180/310	2/5	0.25	10/0.5	180	F
BCX71J	SOT-23	45	45	200	250/460	2/5	0.25	10/0.5	180	F
BCX71K	SOT-23	45	45	200	380/630	2/5	0.25	10/0.5	180	F
BC807-16	SOT-23	45	50	500	100/250	100/1	0.70	500/50	100	F
BC807-25	SOT-23	45	50	500	160/400	100/1	0.7	500/50	100	F
BC807-40	SOT-23	45	50	500	250/600	100/1	0.7	500/50	100	F
BC857A	SOT-23	45	50	100	125/250	2/5	0.30	10/0.5	150	F
BC857B	SOT-23	45	50	100	220/475	2/5	0.3	10/0.5	150	F
BC857C	SOT-23	45	50	100	420/800	2/5	0.3	10/0.5	150	F
BCW69	SOT-23	45	50	100	120/260	2/5	0.30	10/0.5	150	F
BCW70	SOT-23	45	50	100	215/500	2/5	0.30	10/0.5	150	F
BCP52	SOT-223	60	60	1000	40/250	150/2	0.50	500/50	50	R
BCX52	SOT-89	60	60	1000	40/250	150/2	0.50	500/50	50	F
PMBTA55	SOT-23	60	60	500	50/—	100/1	0.25	100/10	> 50	F
PMBT2907A	SOT-23	60	60	600	100/300	150/10	0.4	150/15	> 200	F
PXT2907A	SOT-89	60	60	600	100/300	150/10	0.4	150/15	> 200	F
PZT2907A	SOT-223	60	60	600	100/300	150/10	0.4	150/15	> 200	R
BCW89	SOT-23	60	80	100	120/260	2/5	0.30	10/0.5	150	F
BC856A	SOT-23	65	80	100	220/475	2/5	0.3	10/0.5	150	F
BC856B	SOT-23	65	80	100	125/250	2/5	0.30	10/0.5	150	F
PMBTA56	SOT-23	80	80	500	50/—	100/1	0.25	100/10	50	F
BCP53	SOT-223	80	100	1000	40/250	150/2	0.50	500/50	50	R
BCX53	SOT-89	80	100	1000	40/250	150/2	0.50	500/50	50	F

Pinout Diagrams



	PIN 1	PIN 2	PIN 3	PIN 4
PINOUT F: SOT-23	E	B	C	—
PINOUT F: SOT-89	E	B	C	—
PINOUT G: SOT-143	B,C ₂	C ₁	E ₁	E ₂
PINOUT R: SOT-223	B	C	E	C

Marking Codes

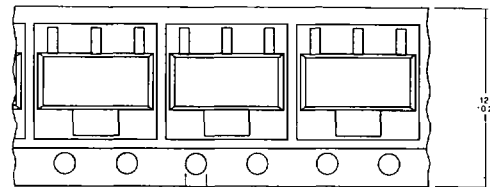
Type No.	Code	Type No.	Code	Type No.	Code	Type No.	Code
BC807-16	5Ap	BC858C	3Lp	BCW69	H1p	PMBT2907A	p2F
BC807-25	5Bp	BC869	CEC	BCW70	H2p	PMBT3906	p2A
BC807-40	5Cp	BCP51	*	BCW89	H3p	PMBT4403	p2T
BC808-16	5Ep	BCP52	*	BCX17	T1p	PMBTA55	p2H
BC808-25	5Fp	BCP53	*	BCX18	T2p	PMBTA56	p2G
BC808-40	5Gp	BCP69	CEp	BCX51	AA	PMBTA70	p2C
BC856A	3Ap	BCV62	3Mp	BCX52	AE	PXT2907A	p2F
BC856B	3Bp	BCW29	C1p	BCX53	AH	PXT3906	p2A
BC857A	3Ep	BCW30	C2p	BCX71G	BGp	PXT4403	p2T
BC857B	3Fp	BCW61A	BAp	BCX71H	BHp	PZT2907A	p2F
BC857C	3Gp	BCW61B	BBp	BCX71J	BJp	PZT3906	2A
BC858A	3Jp	BCW61C	BCp	BCX71K	BKp	PZT4403	*
BC858B	3Kp	BCW61D	BDp	PMBT2907	p2B		

*See individual device data sheet

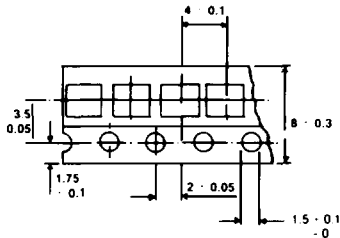
Tape and Reel Specifications

(Dimensions in mm)

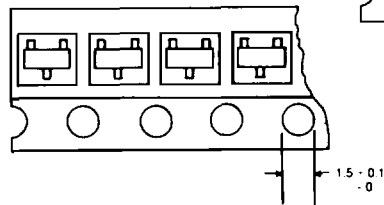
SM Package	Devices Per Reel	Reel Size (in)	Tape Width (mm)	Ordering Suffix
SOT-23	3K	7	8	TRL
	10K	13	8	TRL 13
SOT-89	1K	7	12	TRL
	4K	13	12	TRL 13
SOT-143	3K	7	8	TRL
	10K	13	8	TRL 13
SOT-223	1K	7	12	TRL
	4K	13	12	TRL 13



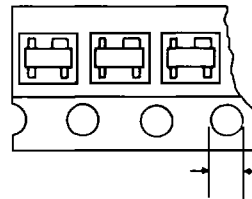
SOT-223 Tape Dimensions and Orientation



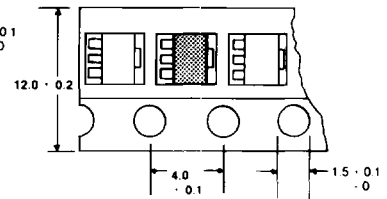
SOT-23 and SOT-143 Tape Dimensions



SOT-23 Orientation



SOT-143 Orientation



SOT-89 Tape Dimensions and Orientation