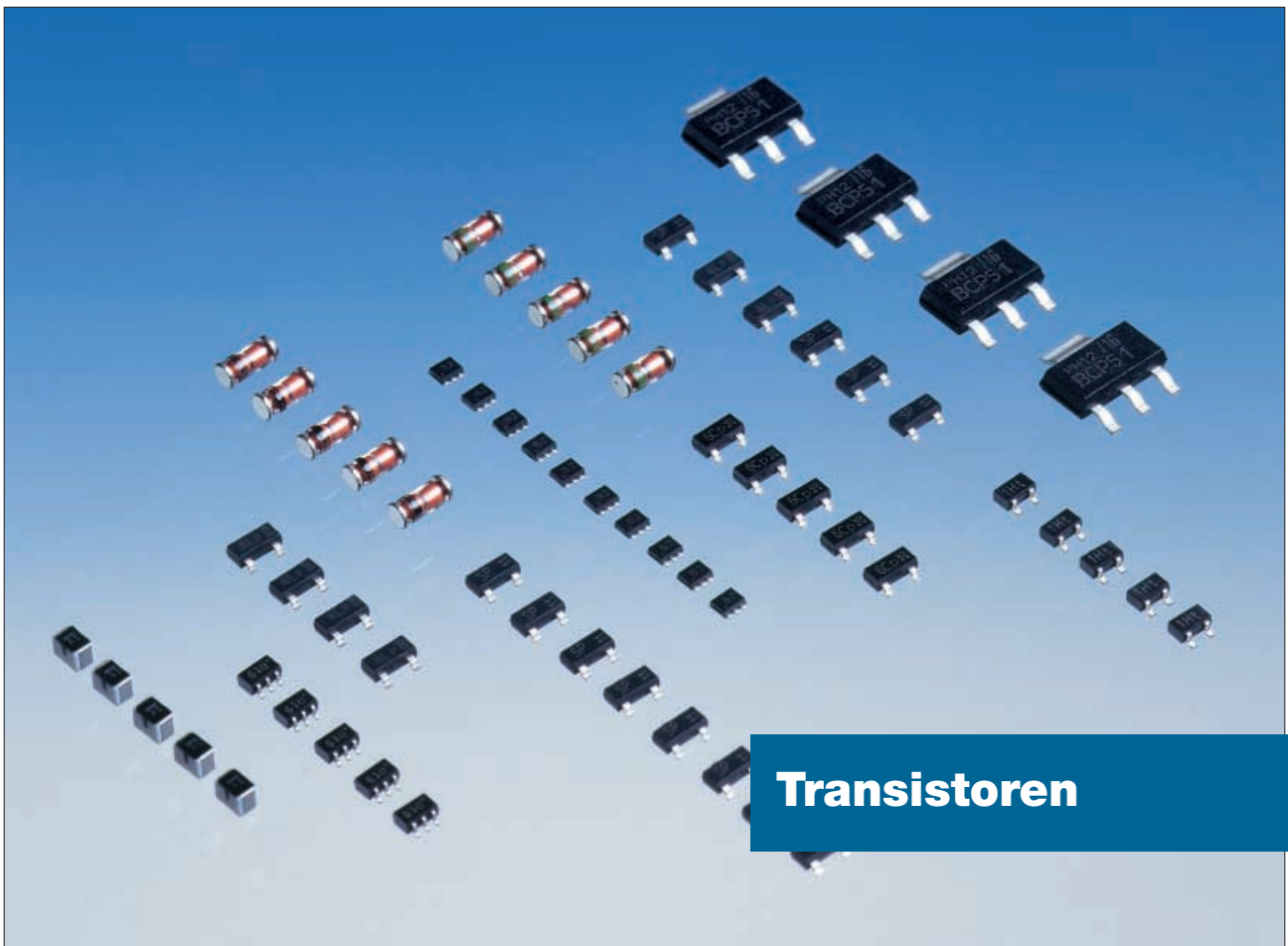


**Elektronik
Bauelemente**

BECK

**Qualitätssicherung
ISO 9001**

Die ganze Welt der Bauelemente



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Transistoren



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General Purpose Transistoren

PHILIPS

Low Power

I _C max. (mA)	V _{CEO} max. (V)	hFE min.	hFE max.	f _T min. (MHz)	POLARITY	Einzel			
						Bedrahtet SOT54 / TO-92 Ptot max. 500/625 mW	SMD		
							SOT23 Ptot max. 250 mW	SC-70/SOT323 Ptot max. 200 mW	Doppel SMD SC-88/SOT363 Ptot max. 200 mW
100	30	200	450	100	NPN	JC548B	BC849B	BC849BW	
100	30	220	475	100	(2) PNP	JC558B	BC859B	BC859BW	
100	30	350	>350	100	NPN			PMST5088	
100	30	420	800	100	(2) NPN	BC549C	BC849C	BC849CW	
100	30	420	800	100	(2) PNP	BC559C	BC859C	BC859CW	
100	32	110..420	220..800	100	NPN		BCW31/32/33		
100	32	120..215	260..500	100	PNP		BCW29/30		
100	32	180..380	310..630	100	NPN		BCW60B/C/D		
100	32	180..380	310..630	100	PNP		BCW61B/C/D		
100	32	200	450	100	NPN		BCF32		
100	40	100	300	180	NPN		PMBS3904		
100	40	100	300	150	PNP		PMBS3906		
100	45	200	450	100	NPN	PSS9014C*			
100	40..50	120..270	270..560	100	(2) NPN			2PC4081Q/R/S	PUMX1
100	40..50	120..270	270..560	100	NPN/PNP				PUMZ1
100	40..50	120..270	270..560	100	(2) PNP			2PA1576Q/R/S	PUMT1
100	45	110	220	100	NPN		BC847A/BCW71	BC847AW	
100	45	125	250	100	PNP		BC857A	BC857AW	
100	45	110	800	100	NPN	BC547	BC847	BC847W	
100	45	125	800	100	PNP	BC557	BC857	BC857W	
100	45	120	260	100	PNP		BCW69		
100	45	120..380	220..630	100	NPN		BCX70G/H/J/K		
100	45	120..380	220..630	100	PNP		BCX71H/J/K		
100	45	200	450	100	(2) NPN		BC847B/BCW72	BC847BW	BC847BS
100	45	200	450	100	NPN/PNP				BC847BPN
100	45	200..220	475..500	100	(2) PNP	BC557B	BC857B/BCW70	BC857BW	BC857BS
100	45	420	800	100	NPN	BC547C	BC847C	BC847CW	
100	45	420	800	100	PNP	BC557C	BC857C	BC857CW	
100	45	500	1250	100	NPN		PMBT6429	PMST6429	
100	50	250	650	100	NPN		PMBT6428	PMST6428	
100	60	110..200	220..450	100	NPN		BCV71/72		
100	60	120	260	100	PNP		BCW89		
100	65	110	220	100	NPN	BC546A	BC846A	BC846AW	BC846S
100	65	125	250	100	PNP	BC556A	BC856A	BC856AW	
100	65	110	450	100	NPN		BC846	BC846W	
100	65	125	475	100	PNP	BC556	BC856	BC856W	BC856S
100	65	200	290	100	NPN	JC546B			
100	65	200	450	100	NPN	BC546B	BC846B	BC846BW	
100	65	220	475	100	PNP	BC556B/JC556B	BC856B	BC856BW	
500	45	100..250	250..600	100	NPN	BC337/-16/-25/-40	BC817/-16/-25/-40	BC817W/-16W/-25W/-40W	
500	45	100..250	250..600	80	PNP	BC327/-16/-25/-40	BC807/-16/-25/-40	BC807W/-16W/-25W/-40W	
500	45	100	600	100	NPN		BCX19		
500	45	100	600	80	PNP		BCX17		
500	60	50	>50	100	NPN			PMSTA05	
500	60	50	>50	50	PNP			PMSTA55	
500	80	50..100	>50..100	100	NPN	MPSA06	PMBTA06	PMSTA06	
500	80	50..100	>50..100	50	PNP	MPSA56	PMBTA56	PMSTA56	

General Purpose Transistoren

Low Power

I _c max. (mA)	V _{CE0} max. (V)	hFE min.	hFE max.	f _T min. (MHz)	POLARITY	Bedrahtet		
						SOT54 / TO-92 Ptot max. 500/625 mW	SOT23 Ptot max. 225 mW	SOT323 Ptot max. 150 mW
200	40	100	300	300	NPN		MMBT3904	MMBT3904W
200	40	100	300	250	PNP		MMBT3906	MMBT3906W
600	40	100	300	300	NPN		MMBT2222A	MMBT2222AW
600	60	100	300	200	PNP		MMBT2907A	MMBT2907AW
600	40	100	300	250	NPN		MMBT4401	MMBT4401W
600	40	100	300	200	PNP		MMBT4403	MMBT4403W
200	15	40	120	-	NPN		MMBT2369A	
100	65	110	220	100	NPN		BC846A	BC846AW
100	65	125	250	100	PNP		BC856A	BC856AW
100	45	110	220	100	NPN		BC847A	BC847AW
100	45	125	250	100	PNP		BC857A	BC857AW
100	65	200	450	100	NPN		BC846B	BC846BW
100	65	220	475	100	PNP		BC856B	BC856BW
100	45	200	450	100	NPN		BC847B	BC847BW
100	45	220	475	100	PNP		BC857B	BC857BW
100	45	420	800	100	NPN		BC847C	BC847CW
100	45	420	800	100	PNP		BC857C	BC857CW

RF Transistor

I _c max. (mA)	V _{CE0} max. (V)	hFE min.	hFE max.	f _T min. (MHz)	POLARITY	Bedrahtet
						SOT123 Ptot max. 225 mW
-	25	60	-	650	NPN	MMBT10
50	15	20	-	650	NPN	MMBT918

General Purpose Transistoren

Medium Power

I _c max. (mA)	V _{CE0} max. (V)	hFE min.	hFE max.	f _T min. (MHz)	POLARITY	Bedrahtet		
						SOT54 / TO-92 Ptot max. 500/625 mW	SOT89 / SC-62 Ptot max. 1100/2000 mW	SOT223 / SC-73 Ptot max. 1300/1370 mW
1.000	20	85..160	>160	40	NPN	BC368	BC868/-25	BCP68/-25
1.000	20	85..160	>160	40	PNP	BC369/-16/-25	BC869/-16/-25	BCP69/-16/-25
1.000	45	40..100	160..250	130..250 typ.	NPN	BC635/-16	BCX54/-10/-16	BCP54/-16
1000	45	40..100	160..250	50..115 typ.	PNP	BC636/-10/-16	BCX51/-10/-16	BCP51/-16
1.000	60	40..100	160..250	100..130 typ.	NPN	BC637/-16	BCX55/-10/-16	BCP55/-10/-16
1.000	60	40..100	160..250	50..100 typ.	PNP	BC638/-16	BCX52/-10/-16	BCP52/-16
1.000	60	40..100	120..300	100	NPN		BSR40/41	BSP41
1.000	60	40..100	120..300	100	PNP		BSR30/31	BSP32/33
1.000	80	40..100	160..250	100..250 typ.	NPN	BC639/-10/-16	BCX56/-10/-16	BCP56/-10/-16
1.000	80	40..100	160..250	50..115 typ.	PNP	BC640/-16	BCX53/-10/-16	BCP53/-10/-16
1.000	80	40..100	120..300	100	NPN		BSR42/43	BSP43
1.000	80	40..100	120..300	100	PNP		BSR33	BSP32/33



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High-Voltage-Transistoren

PHILIPS

Low Power						Einzel			
V _{CEO} max. (V)	I _C max. (mA)	hFE min.	hFE max.	f _r min. (MHz)	POLARITY	Bedrahtet	SMD		
						TO-92 / SOT54 Ptot max. 830 mW	SOT89 / SC-62 Ptot max. 1300 mW	SOT23 Ptot max. 250 mW	SC-70 / SOT323 Ptot max. 250 mW
80	100	20	80	60	NPN			BSS64	
100	100	30	>30	85 typ.	PNP			BSS63	
100	100	150	>150	150	NPN	BFV420			
100	100	150	>150	150	PNP	BFV421			
120	300	40	180	100	PNP			BSR20	
140	300	60	250	100	NPN	2N5550		PMBT5550/BSR19	PMST5550
150	300	60	240	100	PNP	2N5401		PMBT5401/BSR20A	PMST5401
160	300	80	250	100	NPN	2N5551		PMBT5551/BSR19A	PMST5551
200	100	40	>40	50	NPN	MPSA43			
200	200	30	150	15	PNP		BST15		
250	50	50	>50	70	NPN	BF483			
250	50	50	>50	60	NPN	BF422/L	BF622	BF822	BF822W
250	50	50	>50	60	PNP	BF423/L	BF623	BF823	
250	100	40	>40	70	NPN		BST40		
300	50	50	>50	60	NPN	BF420	BF620	BF820	BF820W
300	50	50	>50	60	PNP	BF421/L	BF621	BF821	
300	50	50	>50	70	NPN	BF485			
300	100..500	40	>40	50	NPN	MPSA42	PZTA42	PMBTA42/MMBTA42	PMSTA42
300	100..500	25..40	>25..40	50	PNP	MPSA92	PZTA92	PMBTA92/MMBTA92	PMSTA92
300	200	30	120	15	PNP		BST16		
350	50	40..50	>40..50	70	NPN	BF487			
350	50	50	>50	70	PNP	BF488			
350	100	40	>40	70	NPN		BST39		
400	300	40	>40	20	NPN	MPSA44			

High-Voltage-Transistoren

PANJIT

Low Power						Einzel			
V _{CEO} max. (V)	I _C max. (mA)	hFE min.	hFE max.	f _r min. (MHz)	POLARITY	Bedrahtet	SMD		
						TO-92 / SOT54 Ptot max. 830 mW	SOT89 / SC-62 Ptot max. 1300 mW	SOT23 Ptot max. 250 mW	SC-70 / SOT323 Ptot max. 250 mW
400	300	50	200	50	NPN			MMBTA44	
300	500	40	-	50	NPN			MMBTA42	
300	500	40	-	50	PNP			MMBTA92	

Resistor Equipped Transistoren (RET)

PHILIPS

Input Resistor (KOhm)	2nd Resistor (KOhm)	V _{CEO} max. (V)	I _c / I _o max. (mA)	hFE min.	hFE max.	POLARITY	Einzel				Doppel
							Bedrahtet		SMD		SC-88 / SOT363 Ptot max. 200 mW
							SOT54 / TO-92 Ptot max. 500 mW	SOT23 Ptot max. 250 mW	SC-70 / SOT323 Ptot max. 200 mW	SC-89 / SOT490 Ptot max. 250 mW	
2.2	2.2	50	100	30		NPN		PDTC123ET			
2.2	2.2	50	100	30		PNP		PDTA123ET			
2.2	47	50	100	100		NPN		PDTC123JT		PDTC123JEF	PUMH10
2.2	47	50	100	100		NPN/PNP					PUMD10
2.2	47	50	100	100		PNP		PDTA123JT		PDTA123JEF	
4.7	open	50	100	100	600	NPN		PDTC143TT		PDTC143TEF	PUMH7
4.7	open	50	100	100	600	NPN/PNP					PUMD6
4.7	open	50	100	100	600	PNP				PDTA143TEF	PUMB3
4.7	4.7	50	100	20		NPN	PDTC143ES	PDTC143ET	PDTC143EU		
4.7	4.7	50	100	20		PNP	PDTA143ES	PDTA143ET	PDTA143EU		
4.7	10	50	100	50		NPN		PDTC143XT			
4.7	10	50	100	50		PNP		PDTA143XT		PDTA143XEF	
4.7	47	50	100	100		NPN		PDTC143ZT			
4.7	47	50	100	100		NPN/PNP					PUMD13
4.7	47	50	100	100		PNP		PDTA143ZT			
10	open	50	100	100	600	NPN	PDTC114TS	PDTC114TT	PDTC114TU		PUMH4
10	open	50	100	100	600	PNP	PDTA114TS	PDTA114TT	PDTA114TU		PUMB4
10	10	50	100	30		NPN	PDTC114ES	PDTC114ET	PDTC114EU	PDTC114EEF	PUMH11
10	10	50	100	30		NPN/PNP					PUMD3
10	10	50	100	30		PNP	PDTA114ES	PDTA114ET	PDTA114EU	PDTA114EEF	PUMB11
10	47	50	100	100		NPN		PDTC114YT	PDTC114YU	PDTC114YEF	PUMH9
10	47	50	100	100		NPN/PNP					PUMD9
10	47	50	100	30		PNP		PDTA114YT		PDTA114YEF	
22	open	50	100	100		NPN				PDTC124TEF	
22	22	50	100	56		NPN	PDTC124ES	PDTC124ET	PDTC124EU	PDTC124EEF	PUMH1
22	22	50	100	56		NPN/PNP					PUMD2
22	22	50	100	56		PNP	PDTA124ES	PDTA124ET	PDTA124EU	PDTA124EEF	
22	47	50	100	80		NPN				PDTC124XEF	
22	47	50	100	80		PNP				PDTA124XEF	
47	open	50	100	100		NPN				PDTC144TEF	
47	22	50	100	60		NPN		PDTC144WT	PDTC144WU	PDTC144WEF	
47	22	50	100	60		PNP			PDTA144WU		
47	47	50	100	68		NPN	PDTC144ES	PDTC144ET	PDTC144EU	PDTC144EEF	PUMH2
47	47	50	100	68		NPN/PNP					PUMD12
47	47	50	100	68		PNP	PDTA144ES	PDTA144ET	PDTA144EU	PDTA144EEF	PUMB2
47/2.2	47/47	50	100	80		NPN/PNP					PUMD48



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Low V_{cesat} (BISS) Transistoren

PHILIPS

Low Power													Einzel						Doppel							
I_C max. (A)	I_C peak (mA)	V_{CE0} max. (V)	V_{CEsat} (mV) @ $I_C = 100mA / I_B = 1mA$	V_{CEsat} (mV) @ $I_C = 200mA / I_B = 10mA$	V_{CEsat} (mV) @ $I_C = 500mA / I_B = 50mA$	V_{CEsat} (mV) @ $I_C = 1 A / I_B = 50mA$	V_{CEsat} (mV) @ $I_C = 1 A / I_B = 100mA$	V_{CEsat} (mV) @ $I_C = 2 A / I_B = 200mA$	V_{CEsat} (mV) @ $I_C = 3 A / I_B = 300mA$	V_{CEsat} (mV) @ $I_C = 5 A / I_B = 200mA$	hFE min.	hFE max.	f_T min.	POLARITY	Bedrahtet	SMD					SMD					
															SOT54 / TO-92 Ptot max. 830 mW	SOT 23 Ptot max. 300-480 mW	SOT323 / SC-70 Ptot max. 350...480 mW	SOT363 / SC-88 Ptot max. 430 mW	SOT490 / SC-89 Ptot max. 250 mW	SOT666 / SS-Mini Ptot max. 300 mW	SOT363/SC-88 Ptot max. 430 mW	SOT666 / SS-Mini Ptot max. 300 mW				
500	1.000	15		150	250						200	-	250	NPN							PBSS2515F		PBSS2515YPN	PBSS2515VS*		
500	1.000	15		150	250						200	-	250	NPN/PNP										PBSS2515VPN*		
500	1.000	15		150	250						200	-	250	PNP								PBSS3515F			PBSS3515VS*	
500	1.000	40		200	250						200	-	250	NPN								PBSS2540F				
500	1.000	40		200	350						200	-	250	PNP								PBSS3540F		PBSS4140V		
1.000	2.000	40	100		180			360			300	900	150	NPN										PBSS5140V		
1.000	2.000	40	150		220			420			300	800	150	PNP												
1.000	2.000	40	200		250			500			300	900	150	NPN	PBSS4140S	PBSS4140T	PBSS4140U									
1.000	2.000	40	200		250			500			300	800	150	NPN/PNP												
1.000	2.000	40	200		250			500			300	800	150	PNP	PBSS5140S	PBSS5140T	PBSS5140U									
Medium Power																										
2.000	3.000	40	70		100	180		320			350	-	100	NPN		PBSS4240T							PBSS4240Y			
2.000	3.000	40	100		110	225		350			300	-	100	PNP		PBSS5240T							PBSS5240Y			
3.000	5.000	20				160		210	300		220	-	100	NPN		PBSS4320T**										
3.000	5.000	20						210	310		220	-	100	PNP		PBSS5320T**										
3.000	5.000	50				120		260	370		300	-	100	NPN		PBSS4350T**										
3.000	5.000	50				130		270	390		300	-	100	PNP		PBSS5350T**										
3.000	5.000	50			90	170		290			200	-	100	NPN	PBSS4350S											
3.000	5.000	50			100	180		300			200	-	100	PNP	PBSS5350S											
5.000	10.000	40						150		355	250	-	70	NPN												
5.000	10.000	40						160		375	150	-	60	PNP												

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Low Power						Bedrahtet				SMD			
I_C max. (mA)	V_{CE0} max. (V)	hFE min.	hFE max.	f_T min. (MHz)	POLARITY	SOT54 / TO-92x Ptot max. 500/830 mW	SOT223 / SC-73 Ptot max. 1250 mW	SOT89 / SC-62 Ptot max. 1300 mW	SOT23 Ptot max. 250 mW				
500	30	5000	>5000	125	NPN				PMBTA13				
500	30	10000..20000	>10000..20000	125	NPN	MPSA14	PTZTA14	PXTA14	PMBTA14				
500	30	10000	>10000	125	PNP	MPSA64			PMBTA64				
500	30	20000	>20000	220 typ.	NPN			BCV29	BCV27				
500	30	20000	>20000	220 typ.	PNP			BCV28	BCV26				
500	30	30000	>30000	220 typ.	NPN	BC517							
500	30	30000	>30000	220 typ.	PNP	BC516							
500	45	2000	>2000	200 typ.	NPN				BST50				
500	45	2000	>2000	200 typ.	PNP		BSP60	BST60					
500	50	10000	>10000	125	NPN	MPSA26							
500	60	2000	>2000	200 typ.	NPN				BST51				
500	60	2000	>2000	200 typ.	PNP		BSP61	BST61					
500	60	10000	>10000	220 typ.	NPN			BCV49	BCV47				
500	60	10000	>10000	220 typ.	PNP			BCV48	BCV46				
500	80	2000	>2000	200 typ.	NPN		BSP52	BST52					
500	80	2000	>2000	200 typ.	PNP		BSP62	BST62					
800	55	2000	>2000	155	NPN	BC618							

Darlington Transistoren

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Medium Power						Bedrahtet		SMD					
I_C max. (mA)	V_{CE0} max. (V)	hFE min.	hFE max.	f_T min. (MHz)	POLARITY	SOT54 / TO-92x Ptot max. 500/830 mW	SOT223 / SC-73 Ptot max. 1250 mW	SOT89 / SC-62 Ptot max. 1300 mW	SOT23 Ptot max. 250 mW				
1.000	45	1000	>1000	200 typ.	NPN	BC875							
1.000	45	2000	>2000	201 typ.	NPN				BSP50				
1.000	80	1000	>1000	200 typ.	NPN	BC879							
1.000	60	2000	>2000		NPN				BSP51				
1.000	80	2000	>2000	200 typ.	NPN	BSR52			BSP52				
1.000	80	2000	>2000	200 typ.	PNP	BSR62							

* Neues Produkt / ** Vorankündigung