


EPITAXIAL BASE - TO-220

NPN	PNP	V _{ceo} (V)	V _{ceo} (V)	I _c (A)	P _{tot} (W)	h _{FE} min	I _c /V _{ce} (A/V)	V _{ce sat} max (V)	I _c /I _s (A/mA)	PACKAGE
BD239	BD240	55	45	2	30	40	0.2/4	0.7	1/200	
BD239A	BD240A	70	60	2	30	40	0.2/4	0.7	1/200	
BD239B	BD240B	90	80	2	30	40	0.2/4	0.7	1/200	
BD239C	BD240C	115	100	2	30	40	0.2/4	0.7	1/200	
BD241	BD242	55	45	3	40	25	1/4	1.2	3/600	
BD241A	BD242A	70	60	3	40	25	1/4	1.2	3/600	
BD241B	BD242B	90	80	3	40	25	1/4	1.2	3/600	
BD241C	BD242C	115	100	3	40	25	1/4	1.2	3/600	
BD243	BD244	45	45	6	65	30	0.3/4	1.5	6/1000	
BD243A	BD244A	60	60	6	65	30	0.3/4	1.5	6/1000	
BD243B	BD244B	80	80	6	65	30	0.3/4	1.5	6/1000	
BD243C	BD244C	100	100	6	65	30	0.3/4	1.5	6/1000	
BD533	BD534	45	45	8	50	25	2/2	0.8	2/200	
BD535	BD536	60	60	8	50	25	2/2	0.8	2/200	
BD537	BD538	80	80	8	50	15	2/2	0.8	2/200	
BD663	BD664	45	45	10	75	20	2/2	1	3/300	
BD705	BD706	45	45	12	75	20	4/4	1	4/400	
BD707	BD708	60	60	12	75	15	4/4	1	4/400	
BD709	BD710	80	80	12	75	15	4/4	1	4/400	
BD711	BD712	100	100	12	75	15	4/4	1	4/400	
BD905	BD906	45	45	15	90	15	5/4	1	5/500	
BD907	BD908	60	60	15	90	15	5/4	1	5/500	
BD909	BD910	80	80	15	90	15	5/4	1	5/500	
BD911	BD912	100	100	15	90	15	5/4	1	5/500	
BDW23	BDW24	45	45	6	50	750	2/3	2	2/8	
BDW23A	BDW24A	60	60	6	50	750	2/3	2	2/8	
BDW23B	BDW24B	80	80	6	50	750	2/3	2	2/8	
BDW23C	BDW24C	100	100	6	50	750	2/3	2	2/8	
BDW93	BDW94	45	45	12	80	750	5/3	2	5/20	
BDW93A	BDW94A	60	60	12	80	750	5/3	2	5/20	
BDW93B	BDW94B	80	80	12	80	750	5/3	2	5/20	
BDW93C	BDW94C	100	100	12	80	750	5/3	2	5/20	
BDX53	BDX54	45	45	8	60	750	3/3	2	3/12	
BDX53A	BDX54A	60	60	8	60	750	3/3	2	3/12	
BDX53B	BDX54B	80	80	8	60	750	3/3	2	3/12	
BDX53C	BDX54C	100	100	8	60	750	3/3	2	3/12	
BDX53E	BDX54E	140	140	6	60	500	2/5	2	2/10	
BDX53F	BDX54F	160	160	6	60	500	2/5	2	2/10	
TIP29	TIP30	40	40	1	30	40	0.2/4	0.7	1/125	
TIP29A	TIP30A	60	60	1	30	40	0.2/4	0.7	1/125	
TIP29B	TIP30B	80	80	1	30	40	0.2/4	0.7	1/125	
TIP29C	TIP30C	100	100	1	30	40	0.2/4	0.7	1/125	
TIP31	TIP32	40	40	3	40	25	1/4	1.2	3/375	
TIP31A	TIP32A	60	60	3	40	25	1/4	1.2	3/375	
TIP31B	TIP32B	80	80	3	40	25	1/4	1.2	3/375	
TIP31C	TIP32C	100	100	3	40	25	1/4	1.2	3/375	
TIP41	TIP42	40	40	6	65	30	0.3/4	1.5	6/600	
TIP41A	TIP42A	60	60	6	65	30	0.3/4	1.5	6/600	
TIP41B	TIP42B	80	80	6	65	30	0.3/4	1.5	6/600	
TIP41C	TIP42C	100	100	6	65	30	0.3/4	1.5	6/600	
TIP110	TIP115	60	60	2	50	1000	1/4	2.5	2/8	
TIP111	TIP116	80	80	2	50	1000	1/4	2.5	2/8	
TIP112	TIP117	100	100	2	50	1000	1/4	2.5	2/8	
TIP120	TIP125	60	60	5	65	1000	3/3	2	3/12	

* Darlington types