

SMALL-SIGNAL TRANSISTORS & DIODES & MEDIUM-POWER RECTIFIERS

Small-signal transistors

SWITCHING TRANSISTORS

LEADED TYPES

type number	ratings			characteristics							package
	V _{CEO} max. (V)	I _C max. (mA)	P _{tot} max. (mW)	h _{FE} @ min./max.	I _C /V _{CE} (mA/V)	V _{CEsat.} typ. (V)	f _T typ. (MHz)	t _{off} @ max. (ns)	I _C (mA)		
NPN											
BC875	45	1000	800	1000/-	150/-	-	200	1500	500	TO-92	
BC877	60	1000	800	1000/-	150/-	-	200	1500	500	TO-92	
BC879	80	1000	800	1000/-	150/-	-	200	1500	500	TO-92	
BCX58	32	200	450	120/630	2/5	-	125 ¹⁾	-	-	TO-92	
BCY58	32	200	330	80/1000	10/-	-	280	800	10	TO-18	
BCY59	45	200	330	80/1000	10/-	-	280	800	10	TO-18	
BDX35	60	5000	15000	45/450	500/10	0.9	100	-	-	TO-126	
BDX36	60	5000	15000	45/450	500/10	0.7	100	-	-	TO-126	
BDX37	80	5000	15000	45/450	500/10	0.9	100	-	-	TO-126	
BF370	15	100	500	40/-	10/-	-	500 ¹⁾	-	-	TO-92	
BFR54	15	500 ²⁾	500	40/-	10/-	-	500 ¹⁾	-	-	TO-92	
BFX34	60	2000	5000	40/150	2000/-	-	70 ¹⁾	1200	5000	TO-39	
BFX85	60	1000	800	70/-	150/-	-	50 ¹⁾	360	-	TO-39	
BFY50	35	1000	5000	112 typ.	150/-	-	140	360	150	TO-39	
BFY51	30	1000	5000	123 typ.	150/-	-	160	360	150	TO-39	
BFY52	20	1000	5000	142 typ.	150/-	-	185	360	150	TO-39	
BSR50 ³⁾	45 ⁴⁾	1000	800	2000/-	500/-	-	-	1500	500	TO-92	
BSR51 ³⁾	60 ⁴⁾	1000	800	2000/-	500/-	-	-	1500	500	TO-92	
BSR52 ³⁾	80 ⁴⁾	1000	800	2000/-	500/-	-	-	1500	500	TO-92	
BSS50 ³⁾	45 ⁴⁾	1000	5000	2000/-	500/-	-	-	1000	500	TO-39	
BSS51 ³⁾	60 ⁴⁾	1000	5000	2000/-	500/-	-	-	1000	500	TO-39	
BSS52 ³⁾	80 ⁴⁾	1000	5000	2000/-	500/-	-	-	1000	500	TO-39	
BSV64	60	2000	5000	40/-	2000/-	-	100	1200	5000	TO-39	
BSW65/PH	80	1000	800	30/-	500/5	1	80 ¹⁾	-	-	TO-39	
BSW66A	100	1000	5000	30/-	500/-	-	130	900	500	TO-39	
BSW67A	120	1000	5000	30/-	500/-	-	130	900	500	TO-39	
BSW68A	150	1000	5000	30/-	500/-	-	130	900	500	TO-39	
BSX20	15	500 ²⁾	360	40/120	10/-	-	500 ¹⁾	18	-	TO-18	
BSX32	40	1000	800	30/60	10/-	-	300 ¹⁾	60	500	TO-39	
BSX45	40	1000	6250	40/250	100/-	-	50 ¹⁾	850	100	TO-39	
BSX46	60	1000	6250	40/250	100/-	-	50 ¹⁾	850	100	TO-39	
BSX47	80	1000	6250	40/160	100/-	-	50 ¹⁾	850	100	TO-39	
BSX49	40	600	1000	25/40	100/-	-	400	50	150	TO-18	
BSX49/PH	40	600	1000	25/-	100/1	1	250 ¹⁾	-	-	TO-18	
BSX59	45	1000	800	30/90	500/-	-	450	60	500	TO-39	
BSX60	30	1000	800	30/90	500/-	-	475	70	500	TO-39	
BSX61	45	1000	800	30/90	500/-	-	475	100	500	TO-39	
BSX62	40	3000	875	63/160	1000/-	-	70	1500	100	TO-39	
BSX63	60	3000	875	100/250	1000/-	-	70	1500	100	TO-39	
BSY18	12	200	1000	40/120	10/0.35	0.28	280 ¹⁾	-	-	TO-39	
BSY34	40	600	2600	25/-	10/1	0.17	250 ¹⁾	-	-	TO-39	
BSY63	15	200	1000	30/120	10/1	0.4	300 ¹⁾	-	-	TO-39	
BSY95A	15	100	300	50/200	10/-	-	200 ¹⁾	-	-	TO-18	

SMALL-SIGNAL TRANSISTORS & DIODES & MEDIUM-POWER RECTIFIERS

Small-signal transistors

SWITCHING TRANSISTORS (CONTINUED)

LEADED TYPES

type number	ratings			characteristics						package
	V _{CEO} max. (V)	I _C max. (mA)	P _{tot} max. (mW)	h _{FE} @ min./max.	I _C /V _{CE} (mA/V)	V _{CEsat.} typ. (V)	f _T typ. (MHz)	t _{off} @ max. (ns)	I _C (mA)	
NPN										
MPS3904	40	200	625	100/300	10/-	-	300	90	10	TO-92
MPSA25 ³⁾	40	500	500	10000/-	-	-	220	-	-	TO-92
MPSA26 ³⁾	50	500	500	10000/-	-	-	220	-	-	TO-92
MPSA27 ³⁾	60	500	500	10000/-	-	-	220	-	-	TO-92
MPSA42	300	500	625	40/-	30/-	-	50 ¹⁾	-	-	TO-92
MPSA43	200	500	625	40/-	30/-	-	50 ¹⁾	-	-	TO-92
PH2222	30	800	625	75/-	10/-	-	250 ¹⁾	285	150	TO-92
PH2222A	40	800	625	75/-	10/-	-	300 ¹⁾	285	150	TO-92
PH2369	15	500 ²⁾	500	40/120	10/-	-	500 ¹⁾	18	10	TO-92
PN2222	30	600	625	100/300	150/-	-	250 ¹⁾	285	150	TO-92
PN2222A	40	600	625	100/300	150/-	-	250 ¹⁾	285	150	TO-92
PN2369	15	600	625	40/120	10/-	-	-	18	10	TO-92
PN3439	350	1000	625	30/-	2/-	-	70 ¹⁾	-	-	TO-92
PN3440	250	1000	625	40/-	20/-	-	70 ¹⁾	-	-	TO-92
PZT2369	15	500	500	40/120	10/-	-	500 ¹⁾	18	10	SOT223
2N1711	50 ⁴⁾	1000 ²⁾	800	100/300	150/-	-	70 ¹⁾	-	-	TO-39
2N1893	80	500	3000	40/120	150/-	-	50 ¹⁾	-	-	TO-39
2N2219	30	800	800	100/300	150/-	-	250 ¹⁾	285	150	TO-39
2N2219A	40	800	800	100/300	150/-	-	300 ¹⁾	285	150	TO-39
2N2222	30	800	500	100/300	150/-	-	250	285	150	TO-18
2N2222A	40	800	500	100/300	150/-	-	300	285	150	TO-18
2N2297	35	1000	800	40/120	150/-	-	60 ¹⁾	-	-	TO-39
2N2369	15	500 ²⁾	360	40/120	10/-	-	500	18	10	TO-18
2N3019	80	1000	800	100/300	150/-	-	100	-	-	TO-39
2N3904	40	200	350	100/300	10/-	-	300	250	10	TO-92
2N4124	25	200	350	120/480	-	-	300 ¹⁾	-	-	TO-92
2N4401	40	600	625	100/300	100/-	-	250 ¹⁾	255	150	TO-92
2N5550	140	60	625	60/-	10/-	-	100	-	-	TO-92
2N5551	160	60	625	80/-	10/-	-	100	-	-	TO-92

1) minimum value

2) I_{CM}

3) darlington

4) V_{CER}

5) V_{CES}

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