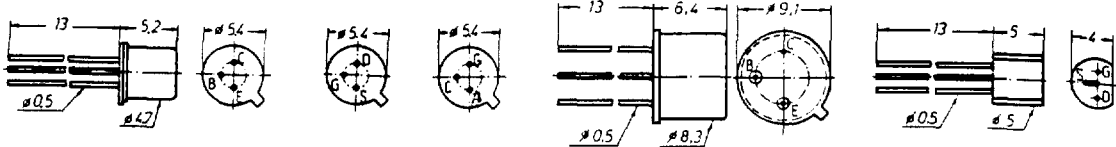
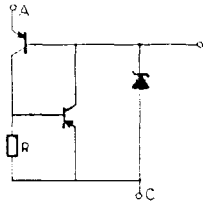
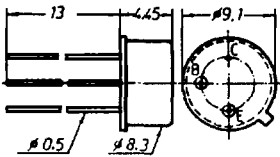


SMALL SIGNAL TRANSISTORS

SPECIAL TYPES



CASES : TO-18 a / d / s TO-39 TO-92d



CASE : TO-100 2N 4983 : EQUIVALENT DIAGRAM

FAST & ULTRAFAST SWITCHING TRANSISTORS

TYPE		P_{tot} @ $T_A = 25^\circ C$	V_{CEO}	I_C	h_{FE} @	I_C	V_{CEsat} @	I_C & I_B	f_T	t_{on}	t_{off}	CASE	
NPN	PNP	(mW)	min. (V)	(mA)	min.-max.	(mA)	max. (mV)	(mA)	typ. (MHz)	max. (ns)	max. (ns)		
BSV 89		360	10	100	40-	10	300	100	10	400	12	18	TO-18a
BSV 90		360	13.5	100	40-120	10	500	100	10	400	12	13	TO-18a
BSV 91		360	15	100	40-270	10	1000	100	10	400	12	13	TO-18a
BSX 12		600	12	1 k	20-	10	700	1000	100	450	15	25	TO-100
BSX 12A		600	15	1 k	30-120	300	700	1000	100	450	15	25	TO-100
BSX 12S		600	12	1 k	22-	300	700	1000	100	450	15	25	TO-100
2N 706		360	15	200	20-	10	600	10	1	200	15	35 *	TO-18a
2N 708		360	15	200	30-120	10	400	10	1	300	40	70	TO-18a
2N 2368		360	15	200	20-60	10	250	10	1	400	12	15	TO-18a
2N 2368S		360	6	100	30-150	20	400	20	0.66	400	20	15	TO-18a
2N 2369		360	15	200	40-120	10	250	10	1	500	12	13	TO-18a
2N 2369A		360	15	200	40-120	10	250	20	3	500	12	13	TO-18a
2N 2890		800	80	2 k	30-90	1000	750	2000	200	30	300	1500	TO-39
2N 2891		800	80	2 k	50-150	1000	750	2000	200	30	300	1500	TO-39

FIELD-EFFECT TRANSISTORS

TYPE		P_{tot} @ $T_A = 25^\circ C$	$\pm V_{DS}$	$-V_{GSoff}$	I_{DSS}	$-I_{GSS}$	Y_{fs}	$f @$	NF @	C_{og}	C_{rs}	CASE	
N-J	P-J	(W)	min. (V)	min.-max. (V)	min.-max. (mA)	max. (nA)	min.-max. (ms)	Y_{fs} min. (MHz)	max. (dB)	f (MHz)	C_{og} min. (pF)	C_{rs} max. (pF)	
BF 245		0.2	30	0.5-8	2-25	5	3-6.5	500			2	1.4	TO-92d
BF 245A		0.2	30	0.5-2.2	2-6.5	5	3-6.5	500			2	1.4	TO-92d
BF 245B		0.2	30	1.6-3.8	6-15	5	3-6.5	500			2	1.4	TO-92d
BF 245C		0.2	30	3.2-7.5	12-25	5	3-6.5	500			2	1.4	TO-92d
BF 247		0.2	25	0.5-14	10-300	5	8-	450			15 *	5	TO-92d
BF 247A		0.2	25	1.5-4	30-80	5	8-	450			15 *	5	TO-92d
BF 247B		0.2	25	3-7	60-140	5	8-	450			15 *	5	TO-92d
BF 247C		0.2	25	5.5-12	110-250	5	8-	450			15 *	5	TO-92d
BF 256		0.2	30	0.5-7.5	3-18	5	4.5-	700	7.5	800	1.55	1	TO-92d
BF 256A		0.2	30	0.5-7.5	3-7	5	4.5-	700	7.5	800	1.55	1	TO-92d
BF 256B		0.2	30	0.5-7.5	6-13	5	4.5-	700	7.5	800	1.55	1	TO-92d
BF 256C		0.2	30	0.5-7.5	11-18	5	4.5-	700	7.5	800	1.55	1	TO-92d
2N 5020		0.25	25	0.3-5	0.3-1.2	1	0.3-		6.5	1	15		TO-18d
2N 5021		0.25	25	0.3-5	1-10	1	0.3-		6.5	1	15		TO-18d

UNILATERAL SWITCH

TYPE	V_S min. (V)	V_S max. (V)	I_S max. (mA)	I_H max. (mA)	I_R max. (uA)	V_P max. (V)	Th.C. #1 typ. (%/°C)	t_{on} max. (us)	t_{off} max. (us)	V_0 min. (V)	C_{og} typ. (pF)	CASE
2N 4983	6	10	0.5	1.5	0.1	1.5	±0.02	1	25	3.5	2.5	TO-18s

Notes : * V_S, I_S = Direct Switch Voltage, Direct Switch Current.
 # Th.C. = Thermal Coefficient of V_S .
 & V_0 = Maximum Pulse Voltage

^ f=1MHz