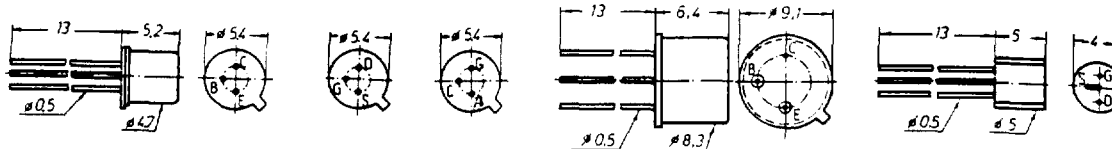


SMALL SIGNAL TRANSISTORS

SPECIAL TYPES



CASES : TO-18

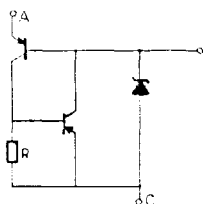
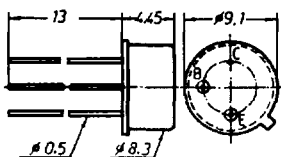
a

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)	(V)	(mA)	min.-max.	(mA)	max.	(mA)	(MHz)	max.	max.	
BSV 89		360	10	100	40-	10	300	100	10	400	12	TO-18a
BSV 90		360	13.5	100	40-120	10	500	100	10	400	12	TO-18a
BSV 91		360	15	100	40-270	10	1000	100	10	400	12	TO-18a
BSX 12		600	12	1 k	20-	10	700	1000	100	450	15	TO-100
BSX 12A		600	15	1 k	30-120	300	700	1000	100	450	15	TO-100
BSX 12S		600	12	1 k	22-	300	700	1000	100	450	15	TO-100
2N 706		360	15	200	20-	10	600	10	1	200	15	TO-18a
2N 708		360	15	200	30-120	10	400	10	1	300	40	TO-18a
2N 2368		360	15	200	20- 60	10	250	10	1	400	12	TO-18a
2N 2368S		360	6	100	30-150	20	400	20	0.66	400	20	TO-18a
2N 2369		360	15	200	40-120	10	250	10	1	500	12	TO-18a
2N 2369A		360	15	200	40-120	10	250	20	3	500	12	TO-18a
2N 2890		800	80	2 k	30- 90	1000	750	2000	200	30	300	TO-39
2N 2891		800	80	2 k	50-150	1000	750	2000	200	30	300	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)	(V)	(V)	(mA)	(nA)	(ms)	(MHz)	(dB)	(pF)	(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	1.55	1	TO-92d
BF 256A		0.2	30	0.5-7.5	3 - 7	5	4.5-	700	7.5	1.55	1	TO-92d
BF 256B		0.2	30	0.5-7.5	6 - 13	5	4.5-	700	7.5	1.55	1	TO-92d
BF 256C		0.2	30	0.5-7.5	11 - 18	5	4.5-	700	7.5	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 *	I_S *	I_H	I_R	V_F	Th.C. #	t_{on}	t_{off}	V_0 &	C_{og}	CASE
	min.	max.	max.	max.	max.	typ.	max.	max.	min.	typ.	
	(V)	(V)	(mA)	(mA)	(uA)	(V)	(%)	(us)	(us)	(pF)	
2N 4983	6	10	0.5	1.5	0.1	1.5	± 0.02	1	25	3.5	TO-18s

Notes : * V_S , I_S = Direct Switch Voltage, Direct Switch Current.

$f = 1\text{MHz}$

Th.C. = Thermal Coefficient of V_S .

& V_0 = Maximum Pulse Voltage