

TRANSISTORS**FUNCTION GUIDE****1.2 Low Noise Transistors****1.2.1 SOT-23 Type Transistors**

Device and Polarity (Marketing)		NF (dB)		V _{CEO} (V)	I _C (A)	Condition		h _{FE}		Condition		V _{CE(sat)} (V)
NPN	PNP	MAX	Condition Frequency			V _{CE} (V)	I _C (mA)	MIN	MAX	I _C (mA)	I _B (mA)	MAX
KST6428(1K)	KST5086(2P)	4	Audio	50	0.2	5	0.1	250	650	100	5	0.6
KST2484(1U)		3	Audio	60	0.05	5	1	250		1	0.1	0.35
KST5088(1Q)		3	Audio	50	0.05	5	0.1	150	500	10	1	0.3
KST5089(1R)	KST5087(2Q)	3	Audio	30	0.05	5	0.1	300	900	10	1	0.5
		2	Audio	50	0.05	5	0.1	250	800	10	1	0.3
		2	Audio	25	0.05	5	0.1	400	1200	10	1	0.5

1.2.2 TO-92S Type Transistors

Device and Polarity		NF (dB) Condition Frequency	V _{CEO} (V)	I _C (A)	Condition		h _{FE}		Condition		V _{CE(sat)}		f _T (MHz)		
NPN	PNP				TYP	V _{CE} (V)	I _C (mA)	MIN	MAX	I _C (mA)	I _B (mA)	MAX	V _{CE} (V)	I _C (mA)	MIN
KSA1175		6	Audio	50	0.15	6	1	40	700	100	10	0.3	6	10	180
KSC2785		4	Audio	50	0.15	6	1	40	700	100	10	0.3	6	10	300

1.2.3 TO-92 Type Transistors

Device and Polarity		NF (dB)		V _{CEO} (V)	I _C (A)	Condition		h _{FE}		Condition		V _{CE(sat)}
NPN	PNP	TYP	Condition Frequency			V _{CE} (V)	I _C (mA)	MIN	MAX	I _C (mA)	I _B (mA)	MAX
2N6428	2N4125	6	Audio	50	0.2	5	0.1	250	650	100	5	0.6
2N4123		6	Audio	30	0.2	1	2	50	150	50	5	0.3
		5	Audio	30	0.2	1	2	50	150	50	5	0.4
2N4124	KSA733	5	Audio	25	0.2	1	2	120	360	50	5	0.3
KSC945		4	Audio	50	0.15	6	1	40	700	100	10	0.3
2N5088	2N4126	4	Audio	25	0.2	1	2	120	360	50	5	0.4
	2N5086	3	Audio	50	0.05	5	0.1	150	500	10	1	0.3
		3	Audio	30	0.05	5	0.1	300	900	10	1	0.5
KSP6520	KSP4250A 2N5087	3	Audio	25	0.1	10	2	200	400	50	5	0.5
KSP6521		3	Audio	25	0.1	10	2	300	600	50	5	0.5
		2	Audio	60		5	0.1	250	700	10	0.5	0.25
		2	Audio	50	0.05	5	0.1	250	800	10	1	0.3
2N5089		2	Audio	25	0.05	5	0.1	400	1200	10	1	0.5
2N6428A		*4	Audio	50	0.2	5	0.1	250	650	100	5	0.6
2N5210		*2	Audio	50	0.05	5	0.1	200	600	10	1	0.7
2N5209		*2	Audio	50	0.05	5	0.1	100	300	10	1	0.7
KSP8097	KSA640	*2	Audio	40	0.2	5	0.1	250	700			
KSC1222		**40	Audio	45	0.05	3	0.5	120	1000	20	2	0.3
KSC900		**30	Audio	25	0.05	3	0.5	120	1000	20	2	0.2

Audio = 10Hz to 15.7KHz

* = MAX, ** = Noise Level