

# Dual Transistors

## TO-78 Case



$P_D$  @  $T_A=25^\circ\text{C}=600\text{mW}$  Total (Both Die Equal Power)

TYPE NO.	DESCRIPTION	$I_C$ (mA)	$V_{CBO}$ (V)	$V_{CEO}$ (V)	$h_{FE}$		@ $I_C$ (mA)	@ $V_{CE}$ (V)	$V_{CE(SAT)}$ (V)	@ $I_C$ (mA)	$f_T$ (MHz)	MATCHING	
					MIN	MAX						$h_{FE}$ %	$V_{BE}$ (mV)
2N2060	NPN AMPL/SWITCH	500	100	60	50	150	10	5.0	1.2	50	60	10	5.0
2N2060A	NPN AMPL/SWITCH	500	100	60	50	150	10	5.0	0.6	50	60	10	3.0
2N2223	NPN AMPL/SWITCH	500	100	60	50	200	10	5.0	1.2	50	50	20	15
2N2223A	NPN AMPL/SWITCH	500	100	60	50	200	10	5.0	1.2	50	50	10	5.0
2N2453	NPN LOW NOISE	50	60	30	150	600	1.0	5.0	1.0	5.0	60	10	3.0
2N2453A	NPN LOW NOISE	50	80	50	150	600	1.0	5.0	1.0	5.0	60	10	3.0
2N2480	NPN AMPL/SWITCH	500	75	35	30	350	1.0	5.0	1.3	50	50	20	10
2N2480A	NPN AMPL/SWITCH	500	80	40	50	200	1.0	5.0	1.2	50	50	20	5.0
2N2639	NPN LOW NOISE	30	45	45	50	300	0.01	5.0	1.0	10	40	10	5.0
2N2640	NPN LOW NOISE	30	45	45	50	300	0.01	5.0	1.0	10	40	20	10
2N2641	NPN LOW NOISE	30	45	45	50	300	0.01	5.0	1.0	10	40	--	--
2N2642	NPN LOW NOISE	30	45	45	100	300	0.01	5.0	1.0	10	40	10	5.0
2N2643	NPN LOW NOISE	30	45	45	100	300	0.01	5.0	1.0	10	40	20	10
2N2644	NPN LOW NOISE	30	45	45	100	300	0.01	5.0	1.0	10	40	--	--
2N2652	NPN AMPL/SWITCH	500	100	60	50	200	1.0	5.0	1.2	50	60	15	3.0
2N2652A	NPN AMPL/SWITCH	500	100	60	50	200	1.0	5.0	1.2	50	60	10	3.0
2N2722	NPN LOW NOISE	40	45	45	50	250	0.001	5.0	1.0	10	100	10	5.0
2N2903	NPN LOW NOISE	50	60	30	125	625	1.0	5.0	1.0	5.0	60	20	10
2N2903A	NPN LOW NOISE	50	60	30	125	625	1.0	5.0	1.0	5.0	60	10	5.0
2N2913	NPN LOW NOISE	30	45	45	60	240	0.01	5.0	0.35	1.0	60	--	--
2N2914	NPN LOW NOISE	30	45	45	150	600	0.01	5.0	0.35	1.0	60	--	--
2N2915	NPN LOW NOISE	30	45	45	60	240	0.01	5.0	0.35	1.0	60	10	3.0
2N2915A	NPN LOW NOISE	30	45	45	60	240	0.01	5.0	0.35	1.0	60	10	1.5
2N2916	NPN LOW NOISE	30	45	45	150	600	0.01	5.0	0.35	1.0	60	10	3.0
2N2916A	NPN LOW NOISE	30	45	45	150	600	0.01	5.0	0.35	1.0	60	10	1.5
2N2917	NPN LOW NOISE	30	45	45	60	240	0.01	5.0	0.35	1.0	60	20	5.0
2N2918	NPN LOW NOISE	30	45	45	150	600	0.01	5.0	0.35	1.0	60	20	5.0
2N2919	NPN LOW NOISE	30	60	60	60	240	0.01	5.0	0.35	1.0	60	10	3.0
2N2919A	NPN LOW NOISE	30	60	60	60	240	0.01	5.0	0.35	1.0	60	10	1.5
2N2920	NPN LOW NOISE	30	60	60	150	600	0.01	5.0	0.35	1.0	60	10	3.0
2N2920A	NPN LOW NOISE	30	60	60	150	600	0.01	5.0	0.35	1.0	60	10	1.5
2N3726	PNP LOW NOISE	300	45	45	135	350	1.0	5.0	0.25	50	200	10	5.0
2N3727	PNP LOW NOISE	300	45	45	135	350	1.0	5.0	0.25	50	200	10	2.5
2N3806	PNP LOW NOISE	50	60	60	150	450	1.0	5.0	0.2	0.1	100	--	--
2N3807	PNP LOW NOISE	50	60	60	300	900	1.0	5.0	0.2	0.1	100	--	--
2N3808	PNP LOW NOISE	50	60	60	150	450	1.0	5.0	0.2	0.1	100	20	5.0
2N3809	PNP LOW NOISE	50	60	60	300	900	1.0	5.0	0.2	0.1	100	20	5.0
2N3810	PNP LOW NOISE	50	60	60	150	450	1.0	5.0	0.2	0.1	100	10	3.0
2N3810A	PNP LOW NOISE	50	60	60	150	450	1.0	5.0	0.2	0.1	100	5.0	1.5
2N3811	PNP LOW NOISE	50	60	60	300	900	1.0	5.0	0.2	0.1	100	10	3.0
2N3811A	PNP LOW NOISE	50	60	60	300	900	1.0	5.0	0.2	0.1	100	5.0	1.5
2N4015	PNP AMPL/SWITCH	300	60	60	135	350	1.0	5.0	0.25	50	200	10	5.0
2N4016	PNP AMPL/SWITCH	300	60	60	135	350	1.0	5.0	0.25	50	200	10	2.5
2N5794	NPN AMPL/SWITCH	600	75	40	100	300	150	10	0.3	150	250	--	--
2N5796	PNP AMPL/SWITCH	600	60	60	100	300	150	10	0.4	150	200	--	--
MD708	NPN SAT SWITCH	200	40	15	40	200	10	1.0	0.5	100	300	--	--
MD708A	NPN SAT SWITCH	200	40	15	40	200	10	1.0	0.5	100	300	10	5.0
MD708B	NPN SAT SWITCH	200	40	15	40	200	10	1.0	0.5	100	300	20	10

# Dual Transistors

## TO-78 Case (Continued)



TYPE NO.	DESCRIPTION	I <sub>C</sub> (mA)	V <sub>CB0</sub> (V)	V <sub>CEO</sub> (V)	h <sub>FE</sub>		@ I <sub>C</sub> (mA)	@ V <sub>CE</sub> (V)	V <sub>CE(SAT)</sub> (V)	@ I <sub>C</sub> (mA)	f <sub>T</sub> (MHz)	MATCHING	
					MIN	MAX						h <sub>FE</sub> %	V <sub>BE</sub> (mV)
MD982	PNP AMPL/SWITCH	600	60	50	35	--	10	10	0.5	150	200	--	--
MD2219A	NPN AMPL/SWITCH	500	60	30	100	300	150	10	0.4	150	200	--	--
MD2369	NPN SAT SWITCH	500	40	15	40	140	10	1	0.25	10	500	--	--
MD2369A	NPN SAT SWITCH	500	40	15	40	140	10	1	0.25	10	500	10	5.0
MD2369B	NPN SAT SWITCH	500	40	15	40	140	10	1	0.25	10	500	20	10
MD2905A	PNP AMPL/SWITCH	600	60	60	100	300	150	10	0.4	150	200	--	--
MD5179	NPN VHF/UHF OSC	50	20	12	25	--	3.0	1.0	0.4	10	900	10	10
MD7000	NPN AMPL/SWITCH	500	50	30	40	--	300	30	0.4	150	200	--	--
MD7001	PNP AMPL/SWITCH	600	50	30	40	--	300	30	0.4	150	200	--	--
MD7002	NPN LOW NOISE	30	50	40	40	--	0.1	10	0.35	10	200	--	--
MD7002A	NPN LOW NOISE	30	50	40	40	--	0.1	10	0.35	10	200	25	25
MD7002B	NPN LOW NOISE	30	50	40	40	--	0.1	10	0.35	10	200	15	15
MD7003	PNP LOW NOISE	50	50	40	40	--	0.1	10	0.35	10	200	--	--
MD7003A	PNP LOW NOISE	50	50	40	40	--	0.1	10	0.35	10	200	25	25
MD7003B	PNP LOW NOISE	50	50	40	40	--	0.1	10	0.35	10	200	15	15
MD8001	NPN LOW NOISE	30	40	40	100	--	1.0	10	--	--	260*	--	15
MD8002	NPN LOW NOISE	30	50	50	100	--	1.0	10	--	--	260*	--	15
MD8003	NPN LOW NOISE	30	60	60	100	--	1.0	10	--	--	260*	--	15
MD3250A	PNP AMP/SWITCH	50	50	40	50	150	1.0	5.0	0.25	10	200	10	5.0
MD3251A	PNP AMP/SWITCH	50	50	40	100	300	1.0	5.0	0.25	10	250	10	5.0

Available on Special Order. Please Consult Factory.

2N4854*	MD984	MD3250,A	MD6502
2N4937	MD985*	MD3251,A	MD7004
2N4938	MD986	MD3725	MD7005
2N4939	MD1123	MD6002	MD7007,A
2N6502	MD1130	MD6003	MD7021*
MD918,A,B	MD1132	MD6100*	

\*NPN/PNP Complementary Types.

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