

# TRANSISTORS

## BIPOLAR

Catalog Number	Direct Commercial Equivalent	Mat.	Appli.	Polarity	Power Diss. @ 25°C Free Air	f <sub>T</sub> Typical MHz	V <sub>CB0</sub> V	V <sub>CE0</sub> V	V <sub>EB0</sub> V	I <sub>C</sub> Max	I <sub>B</sub> Max	h <sub>FE</sub>	@V <sub>CE</sub> V	@I <sub>C</sub> mA	I <sub>CBO</sub> at max V <sub>CB</sub>	Case style
276-2001	2N1304	G	S	NPN	150mW	5	25	25	25	300mA		150	1	10	6μA	TO5
276-2002	2SD187	G	L.L.	NPN	200mW	—	25	—	—	150mA		150	15	30	15μA	TO1
276-2003	2SA221	G	G.P.	PNP	50mW	50	20	—	1.5	1.5 mA		75	6	1	12μA	TO44
276-2004	2SB22/ORN	G	G.P.	PNP	170mW	—	25	—	25	75mA		95	1.5	30	15μA	TO1
276-2005	2SB22/YEL	G	G.P.	PNP	150mW	—	25	—	1.5	200mA		135	1.5	30	15μA	TO1
276-2006	2SB407	G	P.	PNP	30W	0.35	30	30	10	7A		80	1.5	1A	500μA	TO3
276-2007	2N1305	G	S.	PNP	150mW	5	30	—	25	300mA		130	1	10	6μA	TO5
276-2008	SE7056	S	H.V.	NPN	1W	50	300	300	7	30mA		40	20	30	100nA	TO92+
276-2009	MPS2222A	S	G.P.	NPN	500mW	300	75	40	6	800mA		50	10	1	10nA	TO92
276-2010	PN2484	S	L.L.	NPN	360mW	15	60	60	6	50mA		250	5	1	10nA	TO92
276-2011	MPS918	S	RF/IF	NPN	200mW	600	30	15	3	50mA		20	1	3	10nA	TO92
276-2012	MPSA42	S	H.V.	NPN	800mW	30	300	300	7	150mA		35	25	30	50nA	TO92
276-2013	2N5210	S	G.P.	NPN	350mW	30	50	50	4.5	50mA		250	5	1	50nA	TO92
276-2014	MPS3704	S	G.P.	NPN	360mW	100	50	30	5	800mA		100	2	50	100nA	TO92
276-2015	TI386	S	RF/IF	NPN	250mW	600	30	20	4	50mA		40	10	2	100nA	TO92
276-2016	MPS3904	S	S.	NPN	350mW	300	60	40	6	200mA		100	10	1	50nA	TO92
276-2017	TIP31	S	P.	NPN	40W	3	40	40	5	3A	1A	10-50	4	3A	300μA	TO220
276-2018	TIP29	S	P.	NPN	40W	3	40	40	5	1A	400M	15	4	1A	300μA	TO220
276-2019	TIP33	S	P.	NPN	90W	3	40	40	5	10A	3A	20	4	3A	700μA	TO220
276-2020	TIP3055	S	P.	NPN	90W	3	100	70	7	15A	7A	20	4	4A	1mA	TO220
276-2021	MPS3640	S	RF/IF	PNP	350mW	500	12	12	4	80mA		30	0.3	10	10nA	TO92
276-2022	2N5087	S	L.L.	PNP	350mW	40	50	50	3	50mA		250	5	1	50nA	TO92
276-2023	MPS2907	S	S.	PNP	400mW	200	60	40	5	600mA		50	10	1	20nA	TO92
276-2024	MPS3702	S	G.P.	PNP	360mW	100	40	25	5	200mA		60	5	50	0.5μA	TO92
276-2025	TIP32	S	P.	PNP	40W	3	40	46	5	3A	1A	10-50	4	3A	200μA	TO220
276-2026	TIP30	S	P.	PNP	40W	3	40	40	5	1A	400M	15	4	1A	300μA	TO220
276-2027	MJE34	S	P.	PNP	90W	3	40	40	5	10A	3A	20-100	4	3A	200μA	TO220
276-2030	2N3053	S	P.	NPN	1W	100	60	40	5	700mA		50	10	150	—	TO92+
276-2031	MPS3565	S	G.P.	NPN	200mW	40	30	25	6	50mA		120	5	1	50nA	TO92
276-2032	MPS3638	S	RF/IF	PNP	600mW	100	25	25	4	500mA		30	3	10	10nA	TO92
276-2033	MPS3704	S	S.	NPN	350mW	200	60	30	5	500mA		100	10	150	50nA	TO92
276-2034	MPS3906	S	S.	PNP	350mW	250	40	40	5	200mA		100	10	1	50nA	TO92
276-2038	2N3866	S	RF.	NPN	1W	500	60	30	3.5	400mA		100	5	50	100μA	TO39
276-2039	2N6569	S	P	NPN	100W	15	45	40	5	12A	5A	100	4	1A	—	TO3
276-2040	2N6594	S	P	PNP	100W	15	45	40	5	12A	5A	100	4	1A	—	TO3
276-2041	2N3055	S	P	NPN	115W	2.5	100	60	7	15A	7A	50	4	1A	—	TO3
276-2042	2N6576	S	P	NPN	120W	—	60	60	7	15A	.25A	20,000	3	4A	—	TO3
276-2043	MJ2955	S	P	PNP	150W	4	100	60	7	15A	7A	70	10	.5	—	TO3

NOTE: All ratings given are for 25°C except where otherwise noted.

### APPLICATION:

### MATERIAL:

S—Silicon; G—Germanium

S—Switch                      L.L.—Low Level                      RF—RF power  
G.P.—General purpose      P—Power amp./switch              H.V.—High voltage

## FIELD EFFECT

Catalog Number	Direct Commercial Equivalent	Circuit Application	N Chan- nel	P Chan- nel	Max. Power Diss. mW	V <sub>dss</sub> V (max)	V <sub>gss</sub> V (max)	g <sub>fs</sub> mhos min/max	Case Style
276-2028	2N3821	small signal VHF mixer and AMP	X		330	50	50	1.5m/4.5m	TO92
276-2035	2N3819	small signal general purpose	X		360	25	25	2.0n/6.5m	TO92
276-2036	2N3823	RF Amp to 200 MHz	X		300	30	30	3.5m/6.5m	TO72
276-2037	2N5460	general purpose small signal		X	310		40	1.0m/4.0m	TO92

NOTE: All parameters are at 25°C.

## UNIUNION

Catalog Number	Direct Comm. Equivalent	Max Power Diss.	r <sub>BB</sub> (max)	η (max)	V <sub>EB1</sub> (sat)	V <sub>OB1</sub> (min)	I <sub>p</sub> (max)	Case Style
276-2029	MU4891	360mW	9.1K	0.82	4.0V	3.0V	5.0μA	X55