

TRANSISTORS

BIPOLAR

| Catalog Number | Direct Commercial Equivalent | Mat. | Appli. | Polarity | Power Diss. @ 25°C Free Air | f _T Typical MHz | V _{CB0} V | V _{CE0} V | V _{EB0} V | I _C Max | I _B Max | h _{FE} | @V _{CE} V | @I _C mA | I _{CBO} at max V _{CB} | 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 | T1386 | 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.

MATERIAL:

S—Silicon; G—Germanium

APPLICATION:

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 _{dss} V (max) | V _{gss} V (max) | g _{fs} 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 _{BB} (max) | η (max) | V _{EB1} (sat) | V _{OB1} (min) | I _p (max) | Case Style |
|----------------|-------------------------|-----------------|-----------------------|---------|------------------------|------------------------|----------------------|------------|
| 276-2029 | MU4891 | 360mW | 9.1K | 0.82 | 4.0V | 3.0V | 5.0μA | X55 |