# E-LINE TRANSISTORS

## TABLE 7: GENERAL PURPOSE TRANSISTORS

| PART NO. | $V_{CBO}$ V | $V_{CEO}$ V | $I_C$ A | $V_{CE(sat)}$ max @ V | $I_C$ mA | $I_B$ mA | $h_{FE}$ min @ | $I_C$ mA | $V_{CE}$ V | $f_T$ min @ MHz | $I_C$ mA | PIN OUT 123 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NPN** | | | | | | | | | | | | |
| MPSA42 | 300 | 300 | 0.5 | 0.4 | 20 | 2.0 | 50 | 30 | 10 | 50 | 10 | CBE |
| FXTA42 | 300 | 300 | 0.5 | 0.4 | 20 | 2.0 | 50 | 30 | 10 | 50 | 10 | BCE |
| ZTX341 | 100 | 100 | 0.1 | 0.5 | 2 | 0.1 | 30 | 2 | 1 | 80 | 5 | CBE |
| ZTX300 | 25 | 25 | 0.2 | 0.35 | 50 | 5.0 | 50 | 10 | 6 | 150 | 10 | CBE |
| **PNP** | | | | | | | | | | | | |
| MPSA92 | -300 | -300 | -0.5 | -0.4 | -20 | -2.0 | 50 | -30 | -10 | 50 | -10 | CBE |
| FXTA92 | -300 | -300 | -0.5 | -0.4 | -20 | -2.0 | 50 | -30 | -10 | 50 | -10 | BCE |
| ZTX541 | -100 | -100 | -0.1 | -0.5 | -2 | -0.1 | 30 | -2 | -1 | 80 | -5 | CBE |
| ZTX500 | -25 | -25 | -0.2 | -0.35 | -50 | -5.0 | 50 | -10 | -6 | 150 | -10 | CBE |

## TABLE 8: LOW NOISE TRANSISTORS

These transistors are characterised for low noise, low level amplification and are ideally suited for audio pre-amplifiers and instrumentation, as well as universal applications.

| PART NO. | $V_{CBO}$ V | $V_{CEO}$ V | $I_C$ A | $V_{CE(sat)}$ max @ V | $I_C$ mA | $I_B$ mA | $h_{FE}$ min @ | $I_C$ mA | $V_{CE}$ V | $f_T$ min @ MHz | $I_C$ mA | Noise figures max @ dB | $I_C$ µA | f Hz | PIN OUT 123 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NPN** | | | | | | | | | | | | | | | |
| ZTX384C | 45 | 30 | 0.2 | 0.25 | 10 | 0.5 | 250 | 2 | 5 | 150 | 10 | 4 | 200 | 30-15K | CBE |
| **PNP** | | | | | | | | | | | | | | | |
| ZTX214C | -45 | -30 | -0.2 | -0.25 | -10 | -0.5 | 350 | -2 | -5 | 200 | -10 | 2 | -200 | 30-15K | CBE |

## TABLE 9: AVALANCHE TRANSISTORS

Specifically designed to operate in the avalanche mode. Suitable for pulsing laser diodes, pulse generators and other applications requiring very fast edges.

| PART NO. | $V_{CBO}$ V | $V_{CEO}$ V | $I_{CM}$ + A | $I_{SB}$ * A | @ $V_C$ V | $C_{CE}$ nF | $h_{FE}$ @ min | $I_C$ mA | $f_T$ @ min MHz | $I_C$ mA | $P_D$ mW | PIN OUT 123 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NPN** | | | | | | | | | | | | |
| ZTX415 | 260 | 100 | 60 | 25 | 250 | 0.62 | 25 | 10 | 40 | 10 | 680 | CBE |
| ZTX413 | 150 | 50 | 50 | 31 | 130 | 4.7 | 50 | 10 | 150 | 10 | 500 | CBE |

*Current In Secondary Breakdown  +Maximum pulse width 20 nsec

## TABLE 10: SWITCHING TRANSISTORS

These gold doped transistors have been processed to provide short switching times and low output capacitance

| PART NO. | $V_{CBO}$ V | $V_{CEO}$ V | $I_C$ A | $V_{CE(sat)}$ max @ V | $I_C$ mA | $I_B$ mA | $h_{FE}$ min @ | $I_C$ mA | $V_{CE}$ V | $f_T$ min @ MHz | $I_C$ mA | Switching times @ $t_{on}$ ns | $t_{off}$ ns | $I_C$ mA | PIN OUT 123 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NPN** | | | | | | | | | | | | | | | |
| MPS2222A | 75 | 40 | 0.8 | 0.3 | 150 | 15 | 100 | 150 | 10 | 300 | 20 | 35 | 285 | 150 | CBE |
| FXT2222A | 75 | 40 | 0.8 | 0.3 | 150 | 15 | 100 | 150 | 10 | 300 | 20 | 35 | 285 | 150 | BCE |
| ZTX360 | 60 | 40 | 1 | 0.6 | 500 | 50 | 25 | 500 | 1 | 200 | 50 | 40 | 75 | 500 | CBE |
| ZTX314 | 40 | 15 | 0.5 | 0.5 | 100 | 10 | 20 | 100 | 1 | 500 | 10 | 12 | 18 | 10 | CBE |
| MPS2369A | 40 | 15 | 0.5 | 0.2 | 10 | 1 | 20 | 100 | 1 | - | - | 12 | 18 | 10 | CBE |
| **PNP** | | | | | | | | | | | | | | | |
| MPS2907A | -60 | -60 | -0.6 | -0.4 | -150 | -15 | -100 | -150 | -10 | 200 | -50 | 50 | 110 | -150 | CBE |
| FXT2907A | -60 | -60 | -0.6 | -0.4 | -150 | -15 | -100 | -150 | -10 | 200 | -50 | 50 | 110 | -150 | BCE |
| ZTX510 | -12 | -12 | -0.2 | -0.5 | -100 | -10 | -40 | -30 | -0.5 | 400 | -30 | 60 | 90 | -30 | CBE |

## TABLE 11: RF TRANSISTORS

These transistors are designed for small signal amplification from RF to VHF/UHF frequencies. Applications areas include cordless telephones and keyless entry systems

| PART NO. | $V_{CBO}$ V | $V_{CEO}$ V | $f_T$ @ min MHz | $I_C$ mA | Max noise figure N dB | $I_C$ mA | f MHz | $C_{obo}$ max pF | $h_{FE}$ @ min | max | $I_C$ mA | $G_{pe}$ min dB | $P_D$ mW | PIN OUT 123 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NPN** | | | | | | | | | | | | | | |
| ZTX327 | 55 | 30 | 500 | 25 | - | - | - | 3 | 15 | - | 50 | - | - | CBE |
| ZTX3866 | 55 | 30 | 400 | 25 | - | - | - | 3 | 15 | 200 | 50 | - | - | CBE |
| FXT3866 | 55 | 30 | 400 | 25 | - | - | - | 3 | 15 | 200 | 50 | - | - | BCE |
| MPSH10P | 30 | 25 | 650 | 4 | 5 | 2 | 500 | 0.65 | 60 | - | 4 | - | 500 | CEB |
| ZTX325 | 30 | 15 | 1300 | 25 | 5 | 2 | 500 | 0.85 | 20 | 125 | 25 | - | 350 | CBE |
| ZTX320 | 30 | 15 | 600 | 4 | 6 | 1 | 60 | 1.7 | 20 | - | 3 | 15# | 300 | CBE |
| ZTX321 | 30 | 15 | 600 | 4 | 6 | 1 | 60 | 1.7 | 20 | - | 3 | 15# | 300 | CBE |
| ZTX322 | 30 | 15 | 600 | 4 | 6 | 1 | 60 | 1.7 | 20 | 150 | 3 | 15# | 300 | CBE |
| ZTX323 | 30 | 15 | 600 | 4 | 6 | 1 | 60 | 1.7 | 100 | 300 | 3 | 15# | 300 | CBE |
| MPS5179 | 20 | 12 | 900 | 5 | 4.5 | 1.5 | 100 | 1 | 25 | 250 | 3 | 15 | 350 | CBE |

#Typical Values