

SEMICONDUCTOR DICE

NPN MEDIUM POWER

ZETEX SEMICONDUCTORS

| Dice type | V _{CB0} | V _{CE0} | I _{CB0} | | h _{FE} | | | V _{CE(sat)} | | | Max. | f _T | C _{OB0} | Chip geometry |
|-----------|------------------|------------------|-------------------------|-------|-------------------|------|-----------------|----------------------|-------|----------------|------|----------------|------------------|---------------|
| | Min. | Min. | Max. at V _{CB} | | at I _C | | V _{CE} | at I _C | | I _B | Min. | Max. | | |
| | Volts | Volts | nA | Volts | Min. | Max. | mA | Volts | Volts | mA | mA | MHz | pF | |
| ZTX653 | 120 | 100 | 100 | 100 | 100 | 300 | 500 | 2 | 0.3 | 1000 | 100 | 140 | - | G10 |
| ZTX453 | 120 | 100 | 100 | 100 | 40 | 200 | 150 | 10 | 0.7 | 150 | 15 | 150 | 15 | G9 |
| ZT91 | 120 | 100 | 100 | 120 | 40 | 120 | 200 | 10 | 1.2 | 200 | 20 | 60 | 25 | G9 |
| 2N1893 | 120 | 80 | 10 | 90 | 40 | 120 | 150 | 10 | 0.5 | 150 | 15 | 50 | 15 | G9 |
| ZTX652 | 100 | 80 | 100 | 80 | 100 | 300 | 500 | 2 | 0.3 | 1000 | 100 | 140 | - | G10 |
| ZTX452 | 100 | 80 | 100 | 80 | 40 | 150 | 150 | 10 | 0.7 | 150 | 15 | 150 | 15 | G9 |
| MPSA06 | 80 | 80 | 100 | 80 | 50 | - | 100 | 1 | 0.25 | 100 | 10 | 100 | - | G9 |
| ZTX651 | 80 | 60 | 100 | 60 | 100 | 300 | 500 | 2 | 0.3 | 1000 | 100 | 140 | - | G10 |
| ZTX451 | 80 | 60 | 100 | 60 | 50 | 150 | 150 | 10 | 0.35 | 150 | 15 | 150 | 15 | G9 |
| BFY50 | 80 | 35 | 500 | 80 | 30 | - | 150 | 10 | 0.20 | 150 | 15 | 60 | 12 | G9 |
| 2N1613 | 75 | 50* | 10 | 60 | 40 | 120 | 150 | 10 | 1.5 | 150 | 15 | - | 25 | G9 |
| 2N1711 | 75 | 50* | 10 | 60 | 100 | 300 | 150 | 10 | 1.5 | 150 | 15 | 70 | 15 | G9 |
| ZT90 | 60 | 60 | 10 | 60 | 60 | 200 | 200 | 10 | 0.7 | 200 | 20 | 60 | 25 | G9 |
| MPSA05 | 60 | 60 | 100 | 60 | 50 | - | 100 | 1 | 0.25 | 100 | 10 | 100 | - | G9 |
| ZTX650 | 60 | 45 | 100 | 45 | 100 | 300 | 500 | 2 | 0.3 | 1000 | 100 | 140 | - | G10 |
| ZTX450 | 60 | 45 | 100 | 45 | 100 | 300 | 150 | 10 | 0.25 | 150 | 15 | 150 | 15 | G9 |
| BFY51 | 60 | 30 | 500 | 60 | 40 | - | 150 | 10 | 0.35 | 150 | 15 | 50 | 12 | G9 |
| BC337A | 50† | 45 | 100§ | 45 | 100 | 250 | 100 | 1 | 0.7 | 500 | 50 | 100 | 12 | G9 |
| BC337B | 50† | 45 | 100§ | 45 | 160 | 400 | 100 | 1 | 0.7 | 500 | 50 | 100 | 12 | G9 |
| BC337C | 50† | 45 | 100§ | 45 | 250 | 630 | 100 | 1 | 0.7 | 500 | 50 | 100 | 12 | G9 |
| ZTX449 | 50 | 30 | 100 | 40 | 100 | 300 | 500 | 2 | 0.5 | 1000 | 100 | 150 | 15 | G11 |
| BFY52 | 40 | 20 | 500 | 40 | 60 | - | 150 | 10 | 0.35 | 150 | 15 | 50 | 12 | G9 |
| ZTX649 | 35 | 25 | 100 | 30 | 100 | 300 | 1000 | 2 | 0.3 | 1000 | 100 | 150 | 50 | G10 |

†V_{CEs} §I_{CES} *V_{CER}

PNP MEDIUM POWER

| Dice type | V _{CB0} | V _{CE0} | I _{CB0} | | h _{FE} | | | V _{CE(sat)} | | | Max. | f _T | C _{OB0} | Chip geometry |
|-----------|------------------|------------------|-------------------------|-------|-------------------|------|-----------------|----------------------|-------|----------------|------|----------------|------------------|---------------|
| | Min. | Min. | Max. at V _{CB} | | at I _C | | V _{CE} | at I _C | | I _B | Min. | Max. | | |
| | Volts | Volts | nA | Volts | Min. | Max. | mA | Volts | Volts | mA | mA | MHz | pF | |
| ZTX753 | 120 | 100 | 100 | 100 | 100 | 300 | 500 | 2 | 0.3 | 1000 | 100 | 100 | - | G12 |
| ZTX553 | 120 | 100 | 100 | 100 | 40 | 200 | 150 | 10 | 0.25 | 150 | 15 | 150 | 12 | G11 |
| ZTX752 | 100 | 80 | 100 | 80 | 100 | 300 | 500 | 2 | 0.3 | 1000 | 100 | 100 | - | G12 |
| ZTX552 | 100 | 80 | 100 | 80 | 40 | 150 | 150 | 10 | 0.7 | 150 | 15 | 150 | 25 | G11 |
| MPSA56 | 80 | 80 | 100 | 80 | 50 | - | 100 | 1 | 0.25 | 100 | 10 | 100 | - | G11 |
| ZTX751 | 80 | 60 | 100 | 60 | 100 | 300 | 500 | 2 | 0.3 | 1000 | 100 | 100 | - | G12 |
| ZTX551 | 80 | 60 | 100 | 60 | 50 | 150 | 150 | 10 | 0.35 | 150 | 15 | 150 | 25 | G11 |
| MPSA55 | 60 | 60 | 100 | 60 | 50 | - | 100 | 1 | 0.25 | 100 | 10 | 100 | - | G11 |
| ZTX750 | 60 | 45 | 100 | 45 | 100 | 300 | 500 | 2 | 0.3 | 1000 | 100 | 100 | - | G12 |
| ZTX550 | 60 | 45 | 100 | 45 | 100 | 300 | 150 | 10 | 0.25 | 150 | 15 | 150 | 25 | G11 |
| BC327A | 50† | 45 | 100§ | 45 | 100 | 250 | 100 | 1 | 0.7 | 500 | 50 | 100* | 12 | G11 |
| BC327B | 50† | 45 | 100§ | 45 | 160 | 400 | 100 | 1 | 0.7 | 500 | 50 | 100* | 12 | G11 |
| BC327C | 50† | 45 | 100§ | 45 | 250 | 630 | 100 | 1 | 0.7 | 500 | 50 | 100* | 12 | G11 |
| ZTX749 | 35 | 25 | 100 | 30 | 100 | 300 | 1000 | 2 | 0.3 | 1000 | 100 | 100 | 100 | G12 |
| ZTX549 | 35 | 25 | 100 | 30 | 100 | 300 | 500 | 2 | 0.5 | 1000 | 100 | 100 | 25 | G11 |

†V_{CEs} §I_{CES} *Typical values