

Pre-biased Transistors

| Part Number | Package | Polarity | Power Dissipation | Output current | Supply Voltage | DC Current Gain | Output Voltage | Input Resistance | | Transition frequency | Internal Structure |
|-------------|---------|----------|---------------------|---------------------|---------------------|-----------------|--------------------|---------------------|---------------------|----------------------|--------------------|
| | | | P _d (mW) | I _o (mA) | V _{cc} (V) | G _i | V _o (V) | R ₁ (kΩ) | R ₂ (kΩ) | f _t (MHz) | |
| DTC113ZCA | SOT-23 | NPN | 200 | 100 | 50 | 33 | 0.3 | 1 | 10 | 250 | Fig.2 |
| DTC114ECA | SOT-23 | NPN | 200 | 100 | 50 | 30 | 0.3 | 10 | 10 | 250 | Fig.2 |
| DTC114TCA | SOT-23 | NPN | 200 | 100 | 50 | 300 | 0.3 | 10 | | 250 | Fig.1 |
| DTC114YCA | SOT-23 | NPN | 200 | 100 | 50 | 68 | 0.3 | 10 | 47 | 250 | Fig.2 |
| DTC123ECA | SOT-23 | NPN | 200 | 100 | 50 | 20 | 0.3 | 2.2 | 2.2 | 250 | Fig.2 |
| DTC123JCA | SOT-23 | NPN | 200 | 100 | 50 | 80 | 0.3 | 2.2 | 47 | 250 | Fig.2 |
| DTC123YCA | SOT-23 | NPN | 200 | 100 | 50 | 33 | 0.3 | 2.2 | 10 | 250 | Fig.2 |
| DTC124ECA | SOT-23 | NPN | 200 | 100 | 50 | 56 | 0.3 | 22 | 22 | 250 | Fig.2 |
| DTC143ECA | SOT-23 | NPN | 200 | 100 | 50 | 20 | 0.3 | 4.7 | 4.7 | 250 | Fig.2 |
| DTC143TCA | SOT-23 | NPN | 200 | 100 | 50 | 600 | 0.3 | 4.7 | | 250 | Fig.1 |
| DTC143XCA | SOT-23 | NPN | 200 | 100 | 50 | 30 | 0.3 | 4.7 | 10 | 250 | Fig.2 |
| DTC143ZCA | SOT-23 | NPN | 200 | 100 | 50 | 80 | 0.3 | 4.7 | 47 | 250 | Fig.2 |
| DTC144ECA | SOT-23 | NPN | 200 | 100 | 50 | 68 | 0.3 | 47 | 47 | 250 | Fig.2 |
| DTC144TCA | SOT-23 | NPN | 200 | 100 | 50 | 300 | 0.3 | 47 | | 250 | Fig.1 |
| DTC113ZUA | SOT-323 | NPN | 200 | 100 | 50 | 33 | 0.3 | 1 | 10 | 250 | Fig.2 |
| DTC114EUA | SOT-323 | NPN | 200 | 100 | 50 | 30 | 0.3 | 10 | 10 | 250 | Fig.2 |
| DTC114TUA | SOT-323 | NPN | 200 | 100 | 50 | 300 | 0.3 | 10 | | 250 | Fig.1 |
| DTC114YUA | SOT-323 | NPN | 200 | 100 | 50 | 68 | 0.3 | 10 | 47 | 250 | Fig.2 |
| DTC123JUA | SOT-323 | NPN | 200 | 100 | 50 | 80 | 0.3 | 2.2 | 47 | 250 | Fig.2 |
| DTC123YUA | SOT-323 | NPN | 200 | 100 | 50 | 33 | 0.3 | 2.2 | 10 | 250 | Fig.2 |
| DTC124EUA | SOT-323 | NPN | 200 | 100 | 50 | 56 | 0.3 | 22 | 22 | 250 | Fig.2 |
| DTC143EUA | SOT-323 | NPN | 200 | 100 | 50 | 20 | 0.3 | 4.7 | 4.7 | 250 | Fig.2 |
| DTC143TUA | SOT-323 | NPN | 200 | 100 | 50 | 300 | 0.3 | 4.7 | | 250 | Fig.1 |
| DTC143XUA | SOT-323 | NPN | 200 | 100 | 50 | 30 | 0.3 | 4.7 | 10 | 250 | Fig.2 |
| DTC143ZUA | SOT-323 | NPN | 200 | 100 | 50 | 80 | 0.3 | 4.7 | 47 | 250 | Fig.2 |
| DTC144EUA | SOT-323 | NPN | 200 | 100 | 50 | 68 | 0.3 | 47 | 47 | 250 | Fig.2 |
| DTC144TUA | SOT-323 | NPN | 200 | 100 | 50 | 300 | 0.3 | 47 | | 250 | Fig.1 |
| DTC144EE | SOT-523 | NPN | 150 | 100 | 50 | 30 | 0.3 | 10 | 10 | 250 | Fig.2 |
| DTC114TE | SOT-523 | NPN | 150 | 100 | 50 | 300 | 0.3 | 10 | | 250 | Fig.1 |
| DTC114YE | SOT-523 | NPN | 150 | 100 | 50 | 68 | 0.3 | 10 | 47 | 250 | Fig.2 |
| DTC123JE | SOT-523 | NPN | 150 | 100 | 50 | 80 | 0.3 | 2.2 | 47 | 250 | Fig.2 |
| DTC124EE | SOT-523 | NPN | 150 | 100 | 50 | 56 | 0.3 | 22 | 22 | 250 | Fig.2 |
| DTC143EE | SOT-523 | NPN | 150 | 100 | 50 | 20 | 0.3 | 4.7 | 4.7 | 250 | Fig.2 |
| DTC143TE | SOT-523 | NPN | 150 | 100 | 50 | 300 | 0.3 | 4.7 | | 250 | Fig.1 |
| DTC143ZE | SOT-523 | NPN | 150 | 100 | 50 | 80 | 0.3 | 4.7 | 47 | 250 | Fig.2 |
| DTC144EE | SOT-523 | NPN | 150 | 100 | 50 | 68 | 0.3 | 47 | 47 | 250 | Fig.2 |
| DTC144TE | SOT-523 | NPN | 150 | 100 | 50 | 300 | 0.3 | 47 | | 250 | Fig.1 |
| DTC114EM | SOT-723 | NPN | 150 | 100 | 50 | 30 | 0.3 | 10 | 10 | 250 | Fig.2 |
| DTC123JM | SOT-723 | NPN | 100 | 100 | 50 | 80 | 0.3 | 2.2 | 47 | 250 | Fig.2 |
| DTC143TM | SOT-723 | NPN | 100 | 100 | 50 | 600 | 0.3 | 4.7 | | 250 | Fig.1 |
| DTC143ZM | SOT-723 | NPN | 100 | 100 | 50 | 80 | 0.3 | 4.7 | 47 | 250 | Fig.2 |
| DTC144EM | SOT-723 | NPN | 100 | 100 | 50 | 68 | 0.3 | 47 | 47 | 250 | Fig.2 |
| DDTC113ZCA | SOT-23 | NPN | 250 | 500 | 50 | 70 | 0.3 | 1 | 10 | 250 | Fig.2 |
| DDTC123YCA | SOT-23 | NPN | 200 | 500 | 50 | 56 | 0.3 | 2.2 | 10 | 200 | Fig.2 |

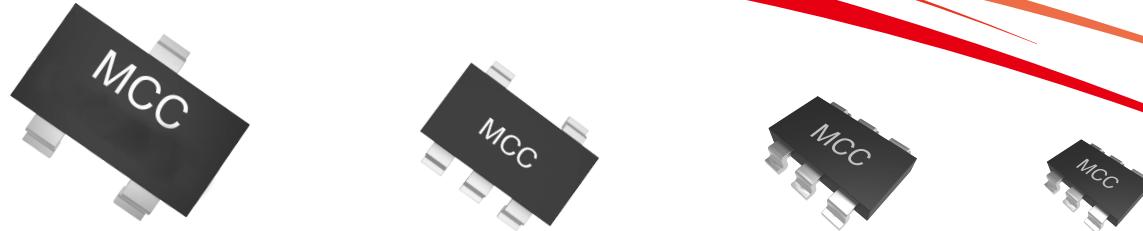
Transistors

Pre-biased Transistors

| Part Number | Package | Polarity | Power Dissipation | Output current | Supply Voltage | DC Current Gain | Output Voltage | Input Resistance | | Transition frequency | Internal Structure |
|-------------|---------|----------|---------------------|---------------------|---------------------|-----------------|--------------------|---------------------|---------------------|----------------------|--------------------|
| | | | P _d (mW) | I _o (mA) | V _{cc} (V) | G _i | V _o (V) | R ₁ (kΩ) | R ₂ (kΩ) | f _t (MHz) | |
| DDTC142TC | SOT-23 | NPN | 200 | 500 | 50 | 56 | 5 | 0.47 | | 200 | Fig.1 |
| UMG2N | SOT-353 | NPN*2 | 150 | 100 | 50 | 68 | 0.3 | 47 | 47 | 250 | Fig.9 |
| UMG8N | SOT-353 | NPN*2 | 150 | 100 | 50 | 80 | 0.3 | 4.7 | 47 | 250 | Fig.9 |
| UMH10N | SOT-363 | NPN*2 | 150 | 100 | 50 | 80 | 0.3 | 2.2 | 47 | 250 | Fig.5 |
| UMH11N | SOT-363 | NPN*2 | 150 | 100 | 50 | 30 | 0.3 | 10 | 10 | 250 | Fig.5 |
| UMH13N | SOT-363 | NPN*2 | 150 | 100 | 50 | 80 | 0.3 | 4.7 | 47 | 250 | Fig.5 |
| UMH1N | SOT-363 | NPN*2 | 150 | 100 | 50 | 56 | 0.3 | 22 | 22 | 250 | Fig.5 |
| UMH2N | SOT-363 | NPN*2 | 150 | 100 | 50 | 68 | 0.3 | 47 | 47 | 250 | Fig.5 |
| UMH3N | SOT-363 | NPN*2 | 150 | 100 | 50 | 600 | 0.3 | 4.7 | | 250 | Fig.11 |
| UMH9N | SOT-363 | NPN*2 | 150 | 100 | 50 | 68 | 0.3 | 10 | 47 | 250 | Fig.5 |
| EMH10 | SOT-563 | NPN*2 | 150 | 100 | 50 | 80 | 0.3 | 2.2 | 47 | 250 | Fig.5 |
| DTA114YM | SOT-723 | PNP | 100 | -70 | -50 | 68 | -5 | 10 | 47 | 250 | Fig.4 |
| DTA113ZCA | SOT-23 | PNP | 200 | -100 | -50 | 33 | -0.3 | 1 | 10 | 250 | Fig.4 |
| DTA114ECA | SOT-23 | PNP | 200 | -100 | -50 | 30 | -0.3 | 10 | 10 | 250 | Fig.4 |
| DTA114TCA | SOT-23 | PNP | 200 | -100 | -50 | 250 | -0.3 | 10 | | 250 | Fig.3 |
| DTA114YCA | SOT-23 | PNP | 200 | -100 | -50 | 68 | -0.3 | 10 | 47 | 250 | Fig.4 |
| DTA123ECA | SOT-23 | PNP | 200 | -100 | -50 | 30 | -0.3 | 2.2 | 2.2 | 250 | Fig.4 |
| DTA123JCA | SOT-23 | PNP | 200 | -100 | -50 | 80 | -0.3 | 2.2 | 47 | 250 | Fig.4 |
| DTA123YCA | SOT-23 | PNP | 200 | -100 | -50 | 33 | -0.3 | 2.2 | 10 | 250 | Fig.4 |
| DTA124ECA | SOT-23 | PNP | 200 | -100 | -50 | 56 | -0.3 | 22 | 22 | 250 | Fig.4 |
| DTA143ECA | SOT-23 | PNP | 200 | -100 | -50 | 30 | -0.3 | 4.7 | 4.7 | 250 | Fig.4 |
| DTA143XCA | SOT-23 | PNP | 200 | -100 | -50 | 30 | -0.3 | 4.7 | 10 | 250 | Fig.4 |
| DTA143ZCA | SOT-23 | PNP | 200 | -100 | -50 | 80 | -0.3 | 4.7 | 47 | 250 | Fig.4 |
| DTA144ECA | SOT-23 | PNP | 200 | -100 | -50 | 68 | -0.3 | 47 | 47 | 250 | Fig.4 |
| DTA114EUA | SOT-323 | PNP | 200 | -100 | -50 | 30 | -0.3 | 10 | 10 | 250 | Fig.4 |
| DTA114TUA | SOT-323 | PNP | 200 | -100 | -50 | 250 | -0.3 | 10 | | 250 | Fig.3 |
| DTA114YUA | SOT-323 | PNP | 200 | -100 | -50 | 68 | -0.3 | 10 | 47 | 250 | Fig.4 |
| DTA123JUA | SOT-323 | PNP | 200 | -100 | -50 | 80 | -0.3 | 2.2 | 47 | 250 | Fig.4 |
| DTA123YUA | SOT-323 | PNP | 200 | -100 | -50 | 33 | -0.3 | 2.2 | 10 | 250 | Fig.4 |
| DTA124EUA | SOT-323 | PNP | 200 | -100 | -50 | 56 | -0.3 | 22 | 22 | 250 | Fig.4 |
| DTA143EUA | SOT-323 | PNP | 200 | -100 | -50 | 30 | -0.3 | 4.7 | 4.7 | 250 | Fig.4 |
| DTA143XUA | SOT-323 | PNP | 200 | -100 | -50 | 30 | -0.3 | 4.7 | 10 | 250 | Fig.4 |
| DTA143ZUA | SOT-323 | PNP | 200 | -100 | -50 | 80 | -0.3 | 4.7 | 47 | 250 | Fig.4 |
| DTA144EUA | SOT-323 | PNP | 200 | -100 | -50 | 68 | -0.3 | 47 | 47 | 250 | Fig.4 |
| DTA114EE | SOT-523 | PNP | 150 | -100 | -50 | 30 | -0.3 | 10 | 10 | 250 | Fig.4 |
| DTA114TE | SOT-523 | PNP | 150 | -100 | -50 | 250 | -0.3 | 10 | | 250 | Fig.3 |
| DTA123JE | SOT-523 | PNP | 150 | -100 | -50 | 80 | -0.3 | 2.2 | 47 | 250 | Fig.4 |
| DTA124EE | SOT-523 | PNP | 150 | -100 | -50 | 56 | -0.3 | 22 | 22 | 250 | Fig.4 |
| DTA143EE | SOT-523 | PNP | 150 | -100 | -50 | 30 | -0.3 | 4.7 | 4.7 | 250 | Fig.4 |
| DTA143ZE | SOT-523 | PNP | 150 | -100 | -50 | 80 | -0.3 | 4.7 | 47 | 250 | Fig.4 |
| DTA144EE | SOT-523 | PNP | 150 | -100 | -50 | 68 | -0.3 | 47 | 47 | 250 | Fig.4 |
| DTA123JM | SOT-723 | PNP | 100 | -100 | -50 | 80 | -0.3 | 2.2 | 47 | 250 | Fig.4 |
| DDTA123YCA | SOT-23 | PNP | 200 | -500 | -50 | 56 | -0.3 | 2.2 | 10 | 200 | Fig.4 |
| UMB4N | SOT-363 | PNP*2 | 150 | -100 | -50 | 100 | -0.3 | 10 | | 250 | Fig.13 |

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|-------------|---------|----------|---------------------|---------------------|---------------------|-----------------|--------------------|---------------------|---------------------|----------------------|--------------------|
| | | | P _d (mW) | I _o (mA) | V _{cc} (V) | G _i | V _o (V) | R ₁ (kΩ) | R ₂ (kΩ) | f _t (MHz) | |
| UMC4N | SOT-353 | NPN+PNP | 150 | 100 | 50/-50 | 68 | 0.3/-0.3 | 47, 10 | 47, 47 | 250 | Fig.8 |
| UMC5N | SOT-353 | NPN+PNP | 150 | 100 | 50/-50 | 68 | 0.3/-0.3 | 47 ± 4.7 | 47 ± 10 | 250 | Fig.8 |
| UMD10N | SOT-363 | NPN+PNP | 150 | 100 | 50/-50 | 80 | 0.3/-0.3 | 2.2 | 47 | 250 | Fig.6 |
| UMD12N | SOT-363 | NPN+PNP | 150 | 100 | 50/-50 | 68 | 0.3/-0.3 | 47 | 47 | 250 | Fig.6 |
| UMD15N | SOT-363 | NPN+PNP | 150 | 100 | 50/-50 | 20 | 0.3/-0.3 | 4.7 | 4.7 | 250 | Fig.6 |
| UMD22N | SOT-363 | NPN+PNP | 150 | 100 | 50/-50 | 80 | 0.3/-0.3 | 4.7 | 47 | 250 | Fig.6 |
| UMD2N | SOT-363 | NPN+PNP | 150 | 100 | 50/-50 | 56 | 0.3/-0.3 | 22 | 22 | 250 | Fig.6 |
| UMD3N | SOT-363 | NPN+PNP | 150 | 100 | 50/-50 | 30 | 0.3/-0.3 | 10 | 10 | 250 | Fig.6 |
| UMD9N | SOT-363 | NPN+PNP | 150 | 100 | 50/-50 | 68 | 0.3/-0.3 | 10 | 47 | 250 | Fig.6 |
| UMF21N | SOT-363 | NPN+PNP | 150 | 100 | 50 | 30 | 0.3 | 10 | 10 | 250 | Fig.10 |
| EMD22 | SOT-563 | NPN+PNP | 150 | 100 | 50/-50 | 80 | 0.3/-0.3 | 4.7 | 47 | 250 | Fig.6 |



Transistors

Internal Structure

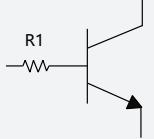


Fig.1

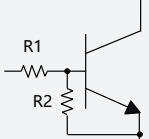


Fig.2

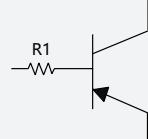


Fig.3

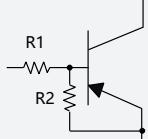


Fig.4

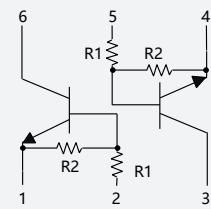


Fig.5

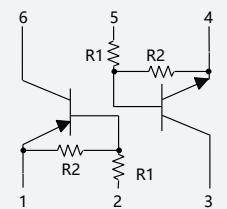


Fig.6

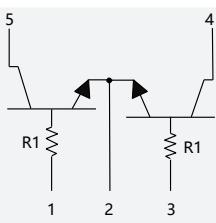


Fig.7

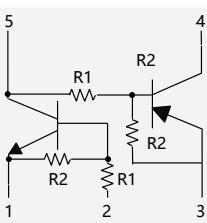


Fig.8

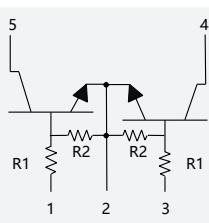


Fig.9

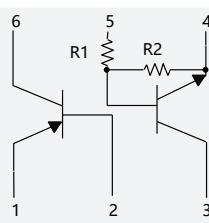


Fig.10

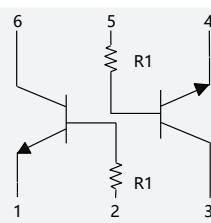


Fig.11

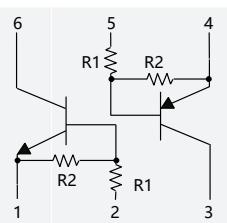


Fig.12

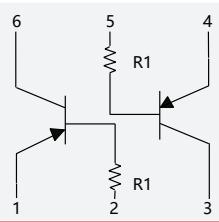


Fig.13

