

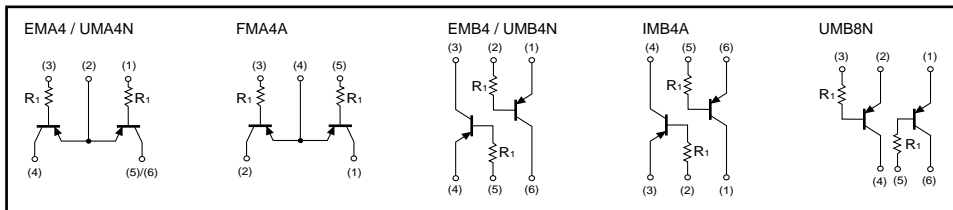
General purpose (dual digital transistors)

EMA4 / UMA4N / EMB4 / UMB4N / UMB8N / FMA4A / IMB4A

●Feature

1) Two DTA114T chips in a EMT or UMT or SMT package.

●Equivalent circuits



●Absolute maximum ratings (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|---------------------------|-------------------------------------|----------|------------|
| Collector-base voltage | V _{CB0} | -50 | V |
| Collector-emitter voltage | V _{CE0} | -50 | V |
| Emitter-base voltage | V _{EB0} | -5 | V |
| Collector current | I _c | -100 | mA |
| Power dissipation | EMA4 / UMA4N / EMB4 / UMB4N / UMB8N | Pd | 150(TOTAL) |
| | FMA4A / IMB4A | | 300(TOTAL) |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -55~+150 | °C |

*1 120mW per element must not be exceeded.
*2 200mW per element must not be exceeded.

●Electrical characteristics (Ta=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|--------------------------------------|----------------------|------|------|------|------|--|
| Collector-base breakdown voltage | BV _{CB0} | -50 | - | - | V | I _c =-50μA |
| Collector-emitter breakdown voltage | BV _{CE0} | -50 | - | - | V | I _c =-1mA |
| Emitter-base breakdown voltage | BV _{EB0} | -5 | - | - | V | I _E =-50μA |
| Collector cutoff current | I _{CB0} | - | - | -0.5 | μA | V _{CB} =-50V |
| Emitter cutoff current | I _{EB0} | - | - | -0.5 | μA | V _{EB} =-4V |
| Collector-emitter saturation voltage | V _{CE(sat)} | - | - | -0.3 | V | I _c /I _B =-10mA/-1mA |
| DC current transfer ratio | h _{FE} | 100 | 250 | 600 | - | V _{CE} =-5V, I _c =-1mA |
| Transition frequency | f _r | - | 250 | - | MHz | V _{CE} =-10V, I _E =5mA, f=100MHz * |
| Input resistance | R _i | 7 | 10 | 13 | kΩ | - |

*Transition frequency of the device.

●Package, marking, and packaging specifications

| Type | EMA4 | UMA4N | EMB4 | UMB4N | UMB8N | FMA4A | IMB4A |
|------------------------------|------|-------|------|-------|-------|-------|-------|
| Package | EMT5 | UMT5 | EMT6 | UMT6 | UMT6 | SMT5 | SMT6 |
| Marking | A4 | A4 | B4 | B4 | B8 | A4 | B4 |
| Code | T2R | TR | T2R | TN | TR | T148 | T110 |
| Basic ordering unit (pieces) | 8000 | 3000 | 8000 | 3000 | 3000 | 3000 | 3000 |

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FMA4A / IMB4A

Transistors

● External dimensions (Units : mm)

