

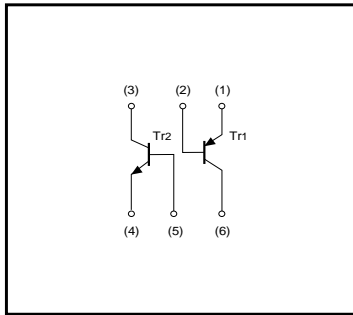
Power management (dual transistors)

EMZ8 / UMZ8N

●Feature

- 1) Both a 2SA2018 chip and 2SC2412K chip in a EMT or UMT package.

●Equivalent circuits



●Absolute maximum ratings (Ta = 25°C)

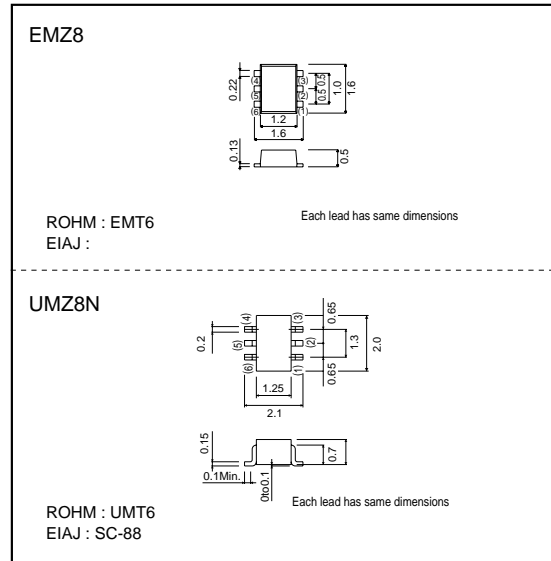
| Parameter | Symbol | Limits | | Unit |
|-----------------------------|------------------|-------------|-----|------|
| | | Tr1 | Tr2 | |
| Collector-base voltage | V _{CB0} | -15 | 60 | V |
| Collector-emitter voltage | V _{CE0} | -12 | 50 | V |
| Emitter-base voltage | V _{EB0} | -6 | 7 | V |
| Collector current | I _c | -150 | 150 | mA |
| Collector power dissipation | P _c | 150 (TOTAL) | | mW * |
| Junction temperature | T _j | 150 | | °C |
| Storage temperature | T _{stg} | -55~+150 | | °C |

* 120mW per element must not be exceeded.

●Package, marking, and packaging specifications

| Part No. | EMZ8 | UMZ8N |
|------------------------------|------|-------|
| Package | EMT6 | UMT6 |
| Marking | Z2 | Z2 |
| Code | T2R | TR |
| Basic ordering unit (pieces) | 8000 | 3000 |

●External dimensions (Units : mm)



Transistors

●Electrical characteristics (Ta=25°C)

Tr1

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|--------------------------------------|----------------------|------|------|-------|------|--|
| Collector-base breakdown voltage | BV _{CB0} | -15 | - | - | V | I _c = -10μA |
| Collector-emitter breakdown voltage | BV _{CE0} | -12 | - | - | V | I _c = -1mA |
| Emitter-base breakdown voltage | BV _{EB0} | -6 | - | - | V | I _E = -10μA |
| Collector cutoff current | I _{CB0} | - | - | -0.1 | μA | V _{CB} = -15V |
| Emitter cutoff current | I _{EB0} | - | - | -0.1 | μA | V _{EB} = -6V |
| Collector-emitter saturation voltage | V _{CE(sat)} | - | -0.1 | -0.25 | V | I _c /I _B = -200mA/-10mA |
| DC current transfer ratio | h _{FE} | 270 | - | 680 | - | V _{CE} = -2V, I _c = -10mA |
| Transition frequency | f _r | - | 260 | - | MHz | V _{CE} = -2V, I _E = 10mA, f = 100MHz |
| Output capacitance | C _{ob} | - | 6.5 | - | pF | V _{CB} = -10V, I _E = 0A, f = 1MHz |

Tr2

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|--------------------------------------|----------------------|------|------|------|------|--|
| Collector-base breakdown voltage | BV _{CB0} | 60 | - | - | V | I _c = 50μA |
| Collector-emitter breakdown voltage | BV _{CE0} | 50 | - | - | V | I _c = 1mA |
| Emitter-base breakdown voltage | BV _{EB0} | 7 | - | - | V | I _E = 50μA |
| Collector cutoff current | I _{CB0} | - | - | 0.1 | μA | V _{CB} = 60V |
| Emitter cutoff current | I _{EB0} | - | - | 0.1 | μA | V _{EB} = 7V |
| Collector-emitter saturation voltage | V _{CE(sat)} | - | - | 0.4 | V | I _c /I _B = 50mA/5mA |
| DC current transfer ratio | h _{FE} | 120 | - | 560 | - | V _{CE} = 6V, I _c = 1mA |
| Transition frequency | f _r | - | 180 | - | MHz | V _{CE} = 12V, I _E = -2mA, f = 100MHz |
| Output capacitance | C _{ob} | - | 2 | 3.5 | pF | V _{CB} = 12V, I _E = 0A, f = 1MHz |



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.