

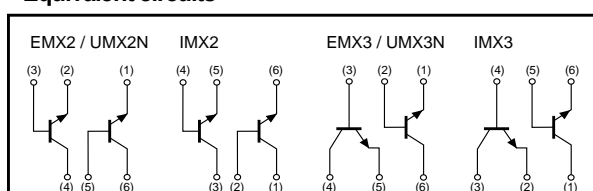
General purpose (dual transistors)

EMX2 / EMX3 / UMX2N / UMX3N / IMX2 / IMX3

●Features

- 1) Two 2SC2412AK 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_{CBO} | 60 | V |
| Collector-emitter voltage | V_{CEO} | 50 | V |
| Emitter-base voltage | V_{EBO} | 7 | V |
| Collector current | I_C | 150 | mA |
| Collector power dissipation | EMX2 / EMX3 / UMX2N / UMX3N | 150(TOTAL) | mW *1 |
| | IMX2 / IMX3 | 300(TOTAL) | mW *2 |
| 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_{CBO} | 60 | – | – | V | $I_C=50\mu A$ |
| Collector-emitter breakdown voltage | BV_{CEO} | 50 | – | – | V | $I_C=1mA$ |
| Emitter-base breakdown voltage | BV_{EBO} | 7 | – | – | V | $I_E=50\mu A$ |
| Collector cutoff current | I_{CBO} | – | – | 0.1 | μA | $V_{CB}=60V$ |
| Emitter cutoff current | I_{EBO} | – | – | 0.1 | μA | $V_{EB}=7V$ |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | – | – | 0.4 | V | $I_C/I_E=50mA/5mA$ |
| DC current transfer ratio | h_{FE} | 120 | – | 560 | – | $V_{CE}=6V, I_C=1mA$ |
| Transition frequency | f_T | – | 180 | – | MHz | $V_{CE}=12V, I_E=-2mA, f=100MHz$ * |
| Output capacitance | C_{ob} | – | 2 | 3.5 | pF | $V_{CB}=12V, I_E=0mA, f=1kHz$ |

*Transition frequency of the device.

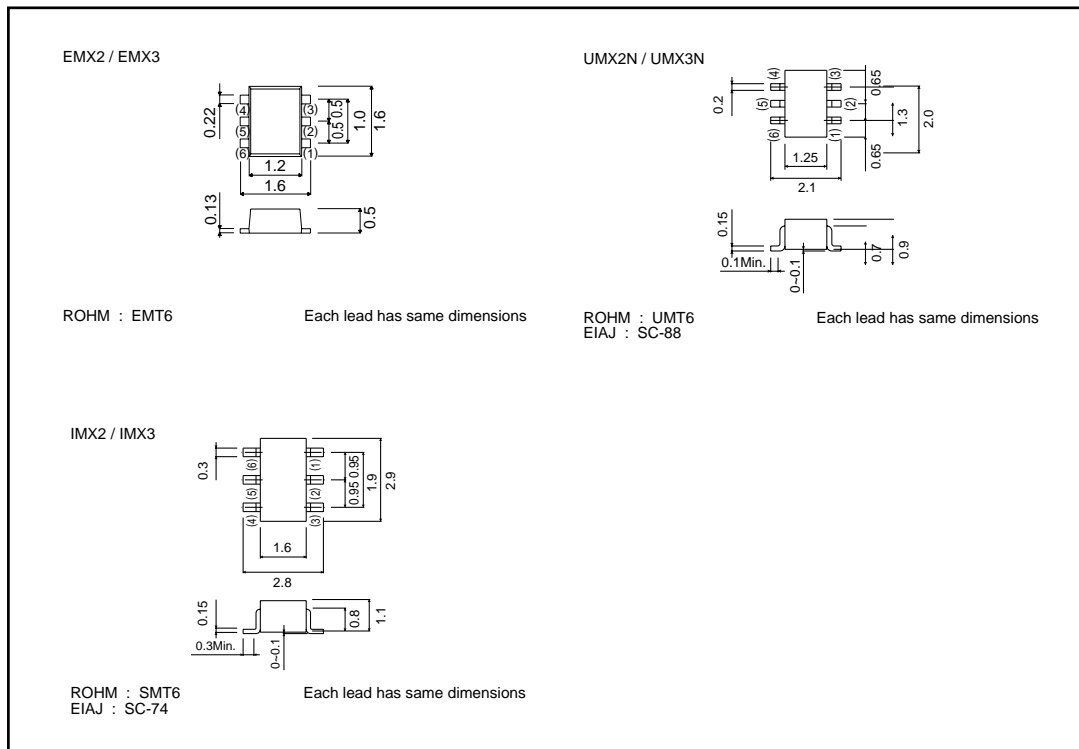
●Package, marking, and packaging specifications

| Type | EMX2 | EMX3 | UMX2N | UMX3N | IMX2 | IMX3 |
|------------------------------|------|------|-------|-------|------|------|
| Package | EMT6 | EMT6 | UMT6 | UMT6 | SMT6 | SMT6 |
| Marking | X2 | X3 | X2 | X3 | X2 | X3 |
| Code | T2R | T2R | TR | TR | T108 | T108 |
| Basic ordering unit (pieces) | 8000 | 8000 | 3000 | 3000 | 3000 | 3000 |

EMX2 / EMX3 / UMX2N / UMX3N / IMX2 / IMX3

Transistors

●External dimensions (Units : mm)



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