



# BIPOLAR TRANSISTOR MODULES

## Ratings and Specifications

### 26 600 volts class power transistor modules

- Power transistors and free wheel diodes are built into one package.
- All terminals are insulated from mounting plate.
- Suited for motor control applications with 220 to 240 volts inputs.
- All terminals are screw-clamp type.

| Device type | V <sub>CB0</sub> | V <sub>CEO</sub> | V <sub>CEO</sub> | I <sub>c</sub> | P <sub>c</sub> | h <sub>FE</sub><br>min. | I <sub>c</sub>          |                          | Switching time (Max.)    |                           |                         | Package | Net mass<br>Grams | Equivalent circuit<br>Page 31, 32 |
|-------------|------------------|------------------|------------------|----------------|----------------|-------------------------|-------------------------|--------------------------|--------------------------|---------------------------|-------------------------|---------|-------------------|-----------------------------------|
|             | Volts            | Volts            | (sus)<br>Volts   | cont.<br>Amps. | Watts          |                         | I <sub>c</sub><br>Amps. | V <sub>CE</sub><br>Volts | t <sub>on</sub><br>μsec. | t <sub>stg</sub><br>μsec. | t <sub>f</sub><br>μsec. |         |                   |                                   |
| 2DI75D-055A | 600              | 600              | 550              | 75             | 350            | 70                      | 75                      | 5                        | 3.0                      | 12                        | 4                       | M208    | 175               | Fig. C2                           |
| 2DI240A-055 | 600              | 600              | 550              | 240            | 1000           | 70                      | 240                     | 5                        | 2.0                      | 12                        | 3                       | M207    | 550               | Fig. C3                           |
| 1DI240A-055 | 600              | 600              | 550              | 240            | 1000           | 70                      | 240                     | 5                        | 2.0                      | 12                        | 3                       | M104    | 450               | Fig. B10                          |
| 1DI480A-055 | 600              | 600              | 550              | 480            | 2000           | 70                      | 480                     | 5                        | 2.0                      | 12                        | 3                       | M105    | 560               | Fig. B10                          |
| EVL31-055   | 600              | 600              | 550              | 100            | 500            | 70                      | 100                     | 5                        | 2.0                      | 12                        | 3                       | M203    | 450               | Fig. C4                           |
| EVL32-055   | 600              | 600              | 550              | 120            | 500            | 70                      | 120                     | 5                        | 2.0                      | 12                        | 3                       | M203    | 450               | Fig. C4                           |
| ETN81-055   | 600              | 600              | 550              | 200            | 1000           | 70                      | 200                     | 5                        | 2.0                      | 12                        | 3                       | M104    | 450               | Fig. B10                          |

### 27 3-terminal type 600 volts class power transistor modules

- Terminal layout in which drive wiring and power wiring do not come across.
- Suited for motor control applications with 200V AC input and power supplies.

| Device type | V <sub>CB0</sub> | V <sub>CEO</sub> | V <sub>CEO</sub> | I <sub>c</sub> | P <sub>c</sub> | h <sub>FE</sub><br>min. | I <sub>c</sub>          |                          | Switching time (Max.)    |                           |                         | Package | Net mass<br>Grams | Equivalent circuit<br>Page 31, 32 |
|-------------|------------------|------------------|------------------|----------------|----------------|-------------------------|-------------------------|--------------------------|--------------------------|---------------------------|-------------------------|---------|-------------------|-----------------------------------|
|             | Volts            | Volts            | (sus)<br>Volts   | cont.<br>Amps. | Watts          |                         | I <sub>c</sub><br>Amps. | V <sub>CE</sub><br>Volts | t <sub>on</sub><br>μsec. | t <sub>stg</sub><br>μsec. | t <sub>f</sub><br>μsec. |         |                   |                                   |
| ETF81-050   | 600              | 600              | 450              | 15             | 120            | 100                     | 15                      | 5                        | 1.0                      | 12                        | 2                       | M101    | 33                | Fig. B9                           |
| EVG31-050A  | 600              | 600              | 450              | 30             | 200            | 100                     | 30                      | 5                        | 3.0                      | 12                        | 4                       | M201    | 90                | Fig. C1                           |
| ETG81-050A  | 600              | 600              | 450              | 30             | 200            | 100                     | 30                      | 5                        | 3.0                      | 12                        | 4                       | M102    | 100               | Fig. B9                           |
| ETK81-050   | 600              | 600              | 450              | 50             | 300            | 100                     | 50                      | 5                        | 3.0                      | 12                        | 4                       | M102    | 100               | Fig. B9                           |
| EVK31-050   | 600              | 600              | 450              | 50             | 300            | 100                     | 50                      | 5                        | 3.0                      | 12                        | 4                       | M201    | 90                | Fig. C1                           |
| ETK85-050   | 600              | 600              | 450              | 75             | 350            | 70                      | 75                      | 5                        | 2.0                      | 10                        | 2.5                     | M102    | 100               | Fig. B9                           |
| EVK71-050   | 600              | 600              | 450              | 75             | 350            | 70                      | 75                      | 5                        | 2.0                      | 10                        | 2.5                     | M202    | 235               | Fig. C4                           |
| EVL31-050   | 600              | 600              | 450              | 100            | 500            | 100                     | 100                     | 5                        | 2.0                      | 10                        | 3                       | M203    | 450               | Fig. C4                           |
| EVM31-050A  | 600              | 600              | 450              | 150            | 600            | 70                      | 150                     | 5                        | 2.0                      | 10                        | 2.5                     | M203    | 450               | Fig. C4                           |
| ETN85-050   | 600              | 600              | 450              | 300            | 1200           | 70                      | 300                     | 5                        | 2.0                      | 12                        | 2.5                     | M104    | 450               | Fig. B10                          |
| ETL81-050   | 600              | 600              | 500              | 100            | 600            | 100                     | 100                     | 5                        | 3.0                      | 10                        | 3                       | M103    | 200               | Fig. B10                          |
| 2DI30D-050A | 600              | 600              | 450              | 30             | 250            | 100                     | 30                      | 5                        | 3.0                      | 12.0                      | 4.0                     | M208    | 175               | Fig. C2                           |
| 2DI50D-050A | 600              | 600              | 450              | 50             | 310            | 100                     | 50                      | 5                        | 3.0                      | 12.0                      | 4.0                     | M208    | 175               | Fig. C2                           |
| 2DI75D-050A | 600              | 600              | 450              | 75             | 350            | 100                     | 75                      | 5                        | 3.0                      | 12.0                      | 4.0                     | M208    | 175               | Fig. D2                           |
| 2DI100D-050 | 600              | 600              | 450              | 100            | 620            | 100                     | 100                     | 5                        | 3.0                      | 12.0                      | 4.0                     | M205    | 340               | Fig. C3                           |
| 2DI150D-050 | 600              | 600              | 450              | 150            | 690            | 100                     | 150                     | 5                        | 3.0                      | 12.0                      | 4.0                     | M205    | 340               | Fig. C3                           |
| 2DI200A-050 | 600              | 600              | 450              | 200            | 900            | 80                      | 200                     | 5                        | 2.0                      | 12.0                      | 3                       | M207    | 550               | Fig. C5                           |
| 2DI300A-050 | 600              | 600              | 450              | 300            | 1200           | 70                      | 300                     | 5                        | 2.0                      | 12.0                      | 2.5                     | M207    | 550               | Fig. C5                           |