

# Gate Driver Module DM Series

New  
Product

**Gate Driver Module integrates the functions required for the SiC MOSFET and IGBT gate drivers.**

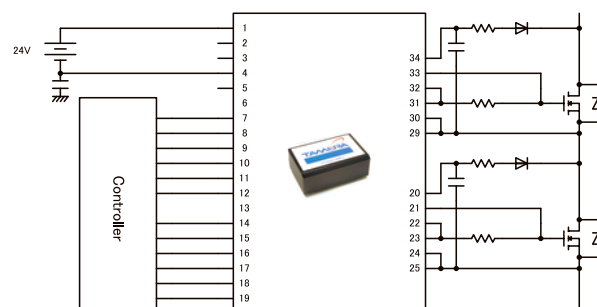
This product is a next-generation drive module that emphasizes common mode noise preventive measures in particular.



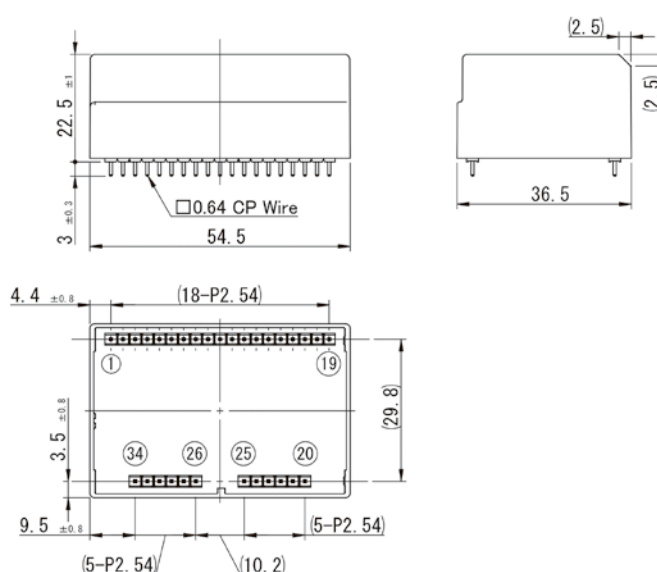
## Features

- Low common mode noise (parasitic capacitance: 15pF TYP)
- Fast response (100ns TYP)
- All-in-one (built-in DC-DC converter/Gate driver)
- It corresponds to a module of 2in1 type. 2 drive circuits are separate respectively.
- Dielectric withstand voltage: AC2500Vrms
- Electrolytic capacitor

## Circuit diagram



## Outline Drawing Unit : mm



| Model  |                             | SiC Driver  | IGBT Driver                  |              |
|--|-----------------------------|---|------------------------------|--------------|
|  |                             | 2DM180506CM   | 2DM150806CM                  | 2DM150606CM  |
| Input  | Supply voltage range        | DC13V to DC28V/DC24V  |                              |              |
|  | Input signal voltage        | 5V  |                              |              |
| Output   | Number of drive circuits    | 2   |                              |              |
|  | Maximum output power        | 3W (per circuit)  |                              |              |
|  | Output terminal voltage (H) | +17V to +19V  | +14V to +16V                 | +14V to +16V |
|  | Output terminal voltage (L) | −4V to −6V  | −7V to −9V                   | −5V to −7V   |
|  | Switching frequency         | 200kHz max  |                              |              |
|  | Gate drive capability       | 2600nC/50kHz<br>650nC/200kHz  | 2700nC/50kHz<br>700nC/200kHz |              |
|  |                             | (When the output power per circuit is equivalent to 3W)   |                              |              |
|  | Maximum output current      | 18A peak (guaranteed by design)   |                              |              |
| Delay time                                     |                             | 100nsec. (typ.)   |                              |              |
| Mirror clamp detection                         |                             | Operation with Output terminal voltage +2Vtyp.; −3A peak (guaranteed by design)   |                              |              |
| Desaturation protection function               |                             | Fault signal output function; Recovery by turning on the reset input again.   |                              |              |
| Signal transmission method (isolation circuit) |                             | Magnetic  |                              |              |
| Dielectric withstand voltage                   |                             | AC2500V/ 1min.<br>Note: Between input and output; Between drive circuits  |                              |              |
| Operating temperature range                    |                             | −30°C to +85°C; Maximum output power at 85°C: Approximately 1W (per circuit)<br>Note: Temperature derating may occur depending on the drive conditions. |                              |              |
| Operating humidity range                       |                             | 20% to 95% RH (No condensing)   |                              |              |



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