



# New Product Announcement

## DPC6137 Series

### 10Mbps Photocouplers Provide a Simple Solution for Isolated Signaling in Industrial and Computer Applications

The DPC6137 photocoupler series has low capacitive coupling phototransistors, which enables them to support high-speed isolated data transmission up to 10Mbps in industrial, consumer, and computer applications.

Inside are two chips, an IR diode and an open-collector Schottky-clamped phototransistor with a high current transfer ratio (CTR), providing a 5,000V isolation rating between the two die.

The DPC6137 series is available in three industry-standard package types: two through-hole (PDIP-8 and MDIP-8) and one surface mount (SL-8). An enable ( $V_E$ ) input allows the detector to be strobed.

All DPC6137 variants are validated with general safety certificates (UL/CQC) with some featuring VDE. Packages which feature VDE have a “-V” package marking to indicate that it has passed a specific “charge/discharge” test.

#### Safety Approvals:

- UL1577
- CQC 4943.1-2022
- VDE EN IEC 60747-5-5



#### The DIODES Advantage

**The DPC6137 series provides a simple and stable solution for isolated signaling.**

- **Low Capacitive Coupling Dual Die Photocoupler Solution**  
Enables 1M to 10Mbps bandwidth for URT/TTL/CAN bus applications in e-meters, LAN, and battery-powered equipment
- **1kV/ $\mu$ s Minimum Common Mode Rejection (CMR) at VCM=10V**  
Provides noise and transient immunity for excellent LSTTL/TTL compatibility and analog signal transmission
- **Improved Current Transfer Rate (CTR)**  
Guarantees AC and DC performance across the industrial temperature range: -40°C to +85°C

#### Applications

- Isolated line receivers
- Computer peripheral interfaces
- Microprocessor system interfaces
- LAN
- Smart e-meters
- Robotic arms

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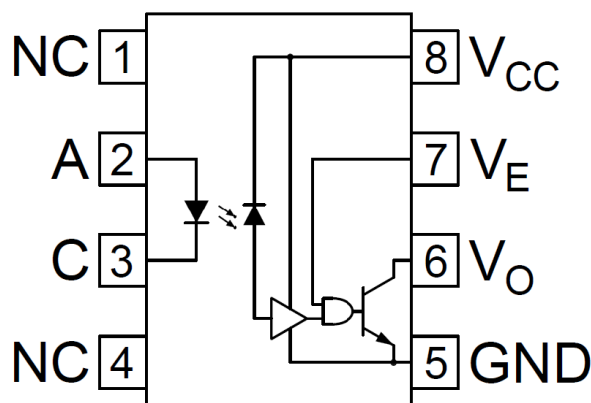
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### Typical Application

| Truth Table |               |           |
|-------------|---------------|-----------|
| $V_{AC}$    | $V_E$ Input   | VO Output |
| H           | H             | L         |
| L           | H             | H         |
| H           | L             | H         |
| L           | L             | H         |
| H           | NC (Floating) | L         |
| L           | NC (Floating) | H         |

Note: 'H' indicates pin A (Anode) > C (Cathode) and that the LED will be on



### Isolated Signaling Photocoupler Product Portfolio

| Part Number              | Transmission Rate | Signal Level          | Isolation Voltage | Operating Temperature Range | Package             |
|--------------------------|-------------------|-----------------------|-------------------|-----------------------------|---------------------|
|                          | bps               |                       | Vrms              | °C                          |                     |
| <a href="#">DPC6137D</a> | 10M               | LSTTL; TTL<br>CMOS 5V | 5,000             | -40 to +85                  | PDIP-8<br>(Type DY) |
| <a href="#">DPC6137W</a> | 10M               | LSTTL; TTL<br>CMOS 5V | 5,000             | -40 to +85                  | MDIP-8              |
| <a href="#">DPC6137S</a> | 10M               | LSTTL; TTL<br>CMOS 5V | 5,000             | -40 to +85                  | SL-8                |

### Ordering Information

| Orderable Part Number         | Compliance<br>(Only Automotive<br>Supports PPAP) | Package             | VDE<br>Certification | Moisture<br>Sensitivity | Packing  |          |
|-------------------------------|--|---------------------|----------------------|-------------------------|----------|----------|
|                               |  |                     |                      |                         | Quantity | Carrier  |
| <a href="#">DPC6137D-TU</a>   | <a href="#">Standard</a>                         | PDIP-8<br>(Type DY) | No                   | MSL-1                   | 45       | Tube     |
| <a href="#">DPC6137D-TU-V</a> | <a href="#">Standard</a>                         |                     | Yes                  |                         |          |          |
| <a href="#">DPC6137W-TU</a>   | <a href="#">Standard</a>                         | MDIP-8              | No                   | MSL-1                   | 45       | Tube     |
| <a href="#">DPC6137W-TU-V</a> | <a href="#">Standard</a>                         |                     | Yes                  |                         |          |          |
| <a href="#">DPC6137S-TR</a>   | <a href="#">Standard</a>                         | SL-8                | No                   | MSL-1                   | 1,000    | 13" Reel |
| <a href="#">DPC6137S-TR-V</a> | <a href="#">Standard</a>                         |                     | Yes                  |                         |          |          |

Note: -V means VDE certified and shown on package marking