

**CWDM305N** (Single, 5.8A N-Channel)  
**CWDM305P** (Single, 5.3A P-Channel)  
**CWDM305ND** (Dual, 5.8A N-Channel)  
**CWDM305PD** (Dual, 5.3A P-Channel)  
**30V, MOSFETs in the SOIC-8 package**



Central Semiconductor's CWDM305N, CWDM305P, CWDM305ND, and CWDM305PD are high current enhancement-mode silicon MOSFETs designed for high speed pulsed amplifier and driver applications. These MOSFETs offer high current, low  $r_{DS(ON)}$ , low threshold voltage, and low gate charge.

**Features:**

- Low  $r_{DS(ON)}$
- High current
- Low threshold voltage
- Low gate charge

**Applications:**

- Load/Power switches
- Power supply converter circuits
- Battery powered portable equipment

**Benefits:**

- Energy efficiency
- High power density
- Industry standard package

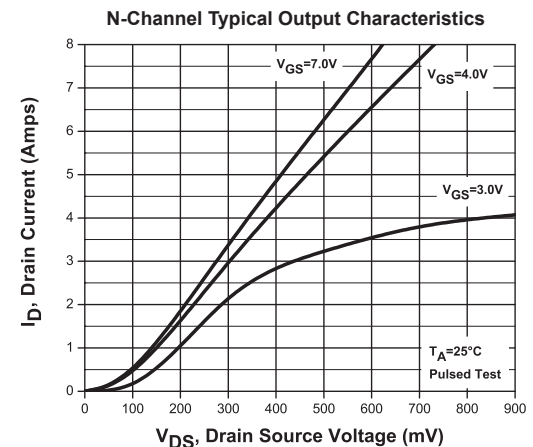
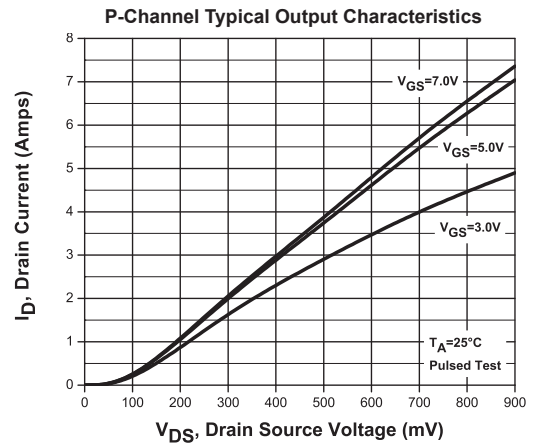
**Samples and Literature:**



To request samples visit:  
[www.centrasemi.com/info/CWDM305](http://www.centrasemi.com/info/CWDM305)

Order your selection guide today.  
 Visit: [web.centrasemi.com/search/sample.php](http://web.centrasemi.com/search/sample.php)

**Typical Electrical Characteristics**



**Weblink:**

Use QR reader for direct link to product web page,



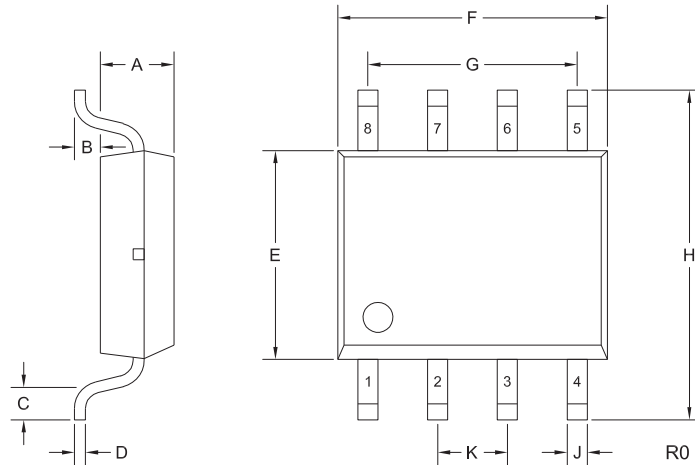
or use: [www.centrasemi.com/info/CWDM305](http://www.centrasemi.com/info/CWDM305)

| Type No.  | Maximum Ratings ( $T_A = 25^\circ\text{C}$ unless otherwise noted) |           |                                     |   | Electrical Characteristics: ( $T_A = 25^\circ\text{C}$ unless otherwise noted) |                  |     |                           |                |                |             |               |                |                |     |
|-----------|--|-----------|-------------------------------------|---|--|------------------|-----|---------------------------|----------------|----------------|-------------|---------------|----------------|----------------|-----|
|           | $I_D$ (A)  | $P_D$ (W) | $T_J, T_{stg}$ ( $^\circ\text{C}$ ) | $\Theta_{JA}$ ( $^\circ\text{C}/\text{W}$ ) | $BV_{DSS}$ (V)   | $V_{GS(th)}$ (V) |     | $r_{DS(ON)}$ ( $\Omega$ ) |                | @ $V_{GS}$ (V) | @ $I_D$ (A) | $Q_{gs}$ (nC) | $C_{iss}$ (pF) | $C_{rss}$ (pF) |     |
|           | MAX  | MAX       | MAX                                 | MAX   | MIN  | MIN              | MAX | TYP                       | MAX            |                |             | TYP           | MAX            | TYP            | TYP |
| P-Channel | 5.3  | 2.0       | -55 to +150                         | 62.5  | 30   | 1.0              | 3.0 | 0.066<br>0.077            | 0.072<br>0.083 | 10<br>5.0      | 2.7<br>2.7  | 1.4           | 2.1            | 500            | 50  |
| N-Channel | 5.8  | 2.0       | -55 to +150                         | 62.5  | 30   | 1.0              | 3.0 | 0.024<br>0.028            | 0.030<br>0.034 | 10<br>5.0      | 2.9<br>2.9  | 0.9           | 1.4            | 500            | 50  |

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**30V, MOSFETs  
in the SOIC-8 package**

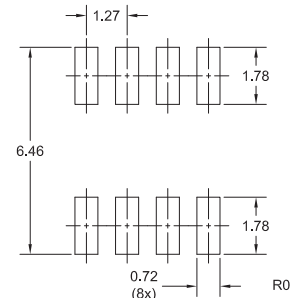
**Mechanical Drawing - SOIC-8**



| SYMBOL | INCHES |       | MILLIMETERS |      |
|--------|--------|-------|-------------|------|
|        | MIN    | MAX   | MIN         | MAX  |
| A      | 0.049  | 0.057 | 1.24        | 1.44 |
| B      | 0.000  | 0.011 | 0.00        | 0.27 |
| C      | 0.018  | -     | 0.46        | -    |
| D      | 0.006  | 0.011 | 0.16        | 0.27 |
| E      | 0.145  | 0.154 | 3.70        | 3.90 |
| F      | 0.189  | 0.198 | 4.81        | 5.01 |
| G      | 0.150  |       | 3.81        |      |
| H      | 0.231  | 0.244 | 5.88        | 6.18 |
| J      | 0.013  | 0.021 | 0.35        | 0.52 |
| K      | 0.050  |       | 1.27        |      |

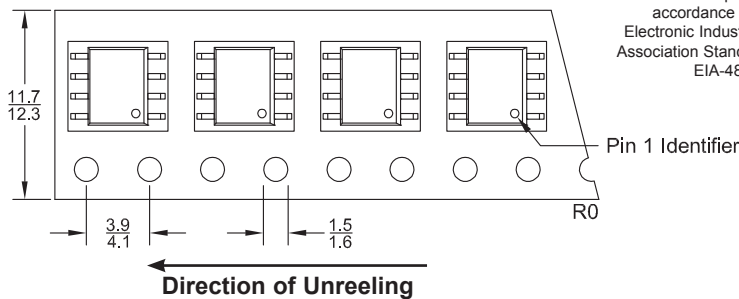
SOIC-8 (REV: R0)

**Mounting Pad  
Geometry**  
(Dimensions in mm)



**Tape Dimensions and Orientation** (Dimensions in mm)

Tape Width: 12mm

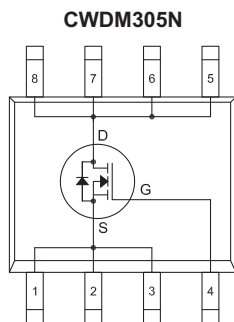


\* Devices are taped in accordance with Electronic Industries Association Standard EIA-481-D

**Packaging Base / Ordering Information**

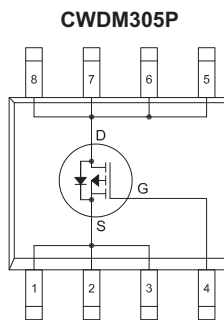
| Reel Size | Quantity | Central Item No. |
|-----------|----------|------------------|
| 13"       | 3,000    | CWDM305N TR13    |
|           |          | CWDM305P TR13    |
|           |          | CWDM305ND TR13   |
|           |          | CWDM305PD TR13   |

**Pinouts and Lead Codes**



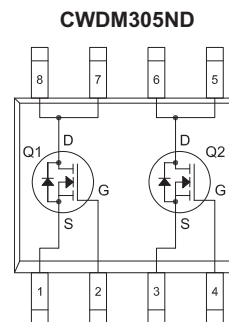
- 1) Source 5) Drain
- 2) Source 6) Drain
- 3) Source 7) Drain
- 4) Gate 8) Drain

MARKING CODE: C305N



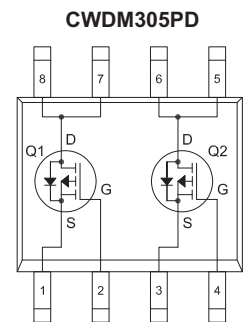
- 1) Source 5) Drain
- 2) Source 6) Drain
- 3) Source 7) Drain
- 4) Gate 8) Drain

MARKING CODE: C503P



- 1) Source Q1 5) Drain Q2
- 2) Gate Q1 6) Drain Q2
- 3) Source Q2 7) Drain Q1
- 4) Gate Q2 8) Drain Q1

MARKING CODE: C305



- 1) Source Q1 5) Drain Q2
- 2) Gate Q1 6) Drain Q2
- 3) Source Q2 7) Drain Q1
- 4) Gate Q2 8) Drain Q1

MARKING CODE: C503

Sample devices available upon request. To order samples visit: [www.centrasemi.com/info/CWDM305](http://www.centrasemi.com/info/CWDM305)



**Innovative Discrete  
Semiconductors**

For further information contact:  
Sales at Central Semiconductor Corp.  
(631) 435-1110 or visit:  
[www.centrasemi.com](http://www.centrasemi.com)