

CMPDM7002AE

60V, 300mA N-Channel MOSFET in SOT-23 package



Central Semiconductor's CMPDM7002AE is a special ESD protected version of the 2N7002 enhancement-mode N-channel MOSFET designed for high speed pulsed amplifier and driver applications.

Features:

- ESD protection up to 1800V
- 350mW power dissipation
- Low gate charge
- Low $r_{DS(ON)}$

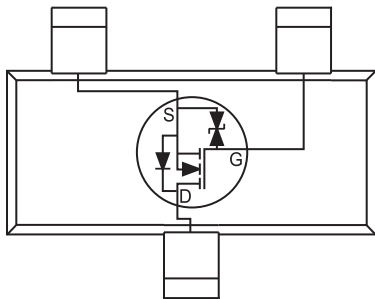
Applications:

- Load/Power switches
- DC-DC converter circuits
- Power management

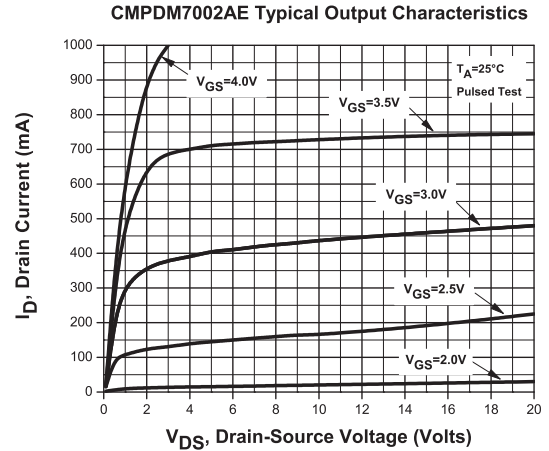
Benefits:

- Energy efficiency
- Enhanced electrical specifications

ESD Protection



Typical Electrical Characteristics



Samples



To request samples visit:
www.centalsemi.com/info/CMPDM7002AE

Weblink

Use QR reader for direct link to product web page,



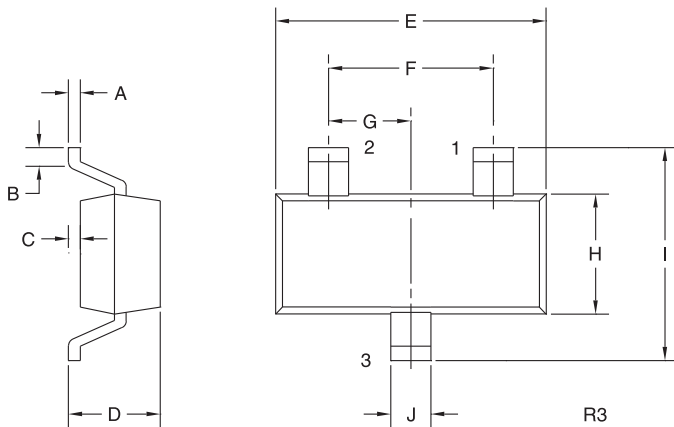
or use: www.centalsemi.com/info/CMPDM7002AE

| Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted) | | | | Electrical Characteristics: ($T_A = 25^\circ\text{C}$ unless otherwise noted) | | | | | | | | | |
|--|-------|-------|----------------------|--|--------------|-----|-------------------|-------------------|------------------|------------------|----------|-----------|-----------|
| V_{DS} | I_D | P_D | T_J, T_{stg} | BV_{DSS} | $V_{GS(th)}$ | | $r_{DS(ON)}$ | | @ V_{GS} | @ I_D | Q_{gs} | C_{iss} | C_{rss} |
| (V) | (mA) | (mW) | ($^\circ\text{C}$) | (V) | (V) | | (Ω) | (Ω) | (V) | (mA) | (nC) | (pF) | (pF) |
| MAX | MAX | MAX | MAX | MIN | MIN | MAX | TYP | MAX | | | TYP | MAX | MAX |
| 60 | 300 | 350 | -65 to +150 | 63 | 1.2 | 2.0 | 1.0 1.1 3.0 | 1.4 1.8 6.0 | 10 5.0 2.5 | 500 100 10 | 0.2 | 50 | 5.0 |

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Mechanical Drawing - SOT-23



| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.003 | 0.007 | 0.08 | 0.18 |
| B | 0.006 | - | 0.15 | - |
| C | - | 0.005 | - | 0.13 |
| D | 0.035 | 0.043 | 0.89 | 1.09 |
| E | 0.110 | 0.120 | 2.80 | 3.05 |
| F | 0.075 | | 1.90 | |
| G | 0.037 | | 0.95 | |
| H | 0.047 | 0.055 | 1.19 | 1.40 |
| I | 0.083 | 0.098 | 2.10 | 2.49 |
| J | 0.014 | 0.020 | 0.35 | 0.50 |

SOT-23 (REV: R3)

LEAD CODE:

- 1) Gate
- 2) Source
- 3) Drain

MARKING CODE:

C702E

Packaging Base / Ordering Information

| Reel Size | Quantity | Central Item No. |
|-----------|----------|------------------|
| 7" | 3,000 | CMPDM7002AE TR |
| 13" | 10,000 | |

Literature

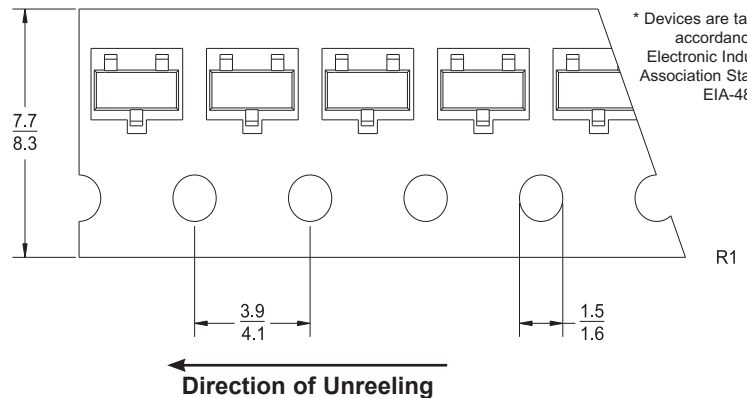


New
SMD
SELECTION
GUIDE

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Tape Dimensions and Orientation (Dimensions in mm)

Tape Width: 8mm



* Devices are taped in accordance with Electronic Industries Association Standard EIA-481-1-A

Reel Packing Information

| Reel Size | Reels per Box (Maximum) | Parts per Box (Maximum) | Box Dimensions | | Shipping Weight (Max.) | |
|-----------|-------------------------|-------------------------|----------------|----------|------------------------|----|
| | | | INCH | CM | LB | KG |
| 7" | 9 | 27,000 | 9x9x5 | 23x23x13 | 3 | 2 |
| | 18 | 54,000 | 9x9x9 | 23x23x23 | 6 | 3 |
| | 40 | 120,000 | 21x9x9 | 53x23x23 | 13 | 6 |
| | 108 | 324,000 | 27x9x17 | 69x23x43 | 34 | 16 |
| 13" | 6 | 60,000 | 15x4x15 | 38x10x38 | 6 | 3 |
| | 14 | 140,000 | 15x15x9 | 38x38x23 | 15 | 7 |
| | 26 | 260,000 | 15x15x18 | 38x38x46 | 28 | 13 |

Sample devices available upon request. To order samples visit: www.centrasemi.com/info/CMPDM7002AE



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