

CMLDM3737 (N-Channel) CMLDM5757 (P-Channel)

Dual, Complementary MOSFETs in miniature SOT-563 package



Central Semiconductor's CMLDM3737 (N-Channel) and complementary CMLDM5757 (P-Channel) are dual 20V, 540mA (N-channel) and 20V, 430mA (P-Channel) MOSFETs in the miniature, SOT-563 surface mount package. CMLDM3737 and CMLDM5757 are ideal solutions for design engineers seeking energy efficient MOSFETs in a small package.

Features:

- ESD protection up to 2kV
- 350mW Power dissipation
- Low threshold voltage
- Logic gate charge
- Very Low $r_{DS(ON)}$

Applications:

- Load Switch/Level Shifting
- Battery charging
- Boost switch
- Electro-luminescent backlighting

Benefits:

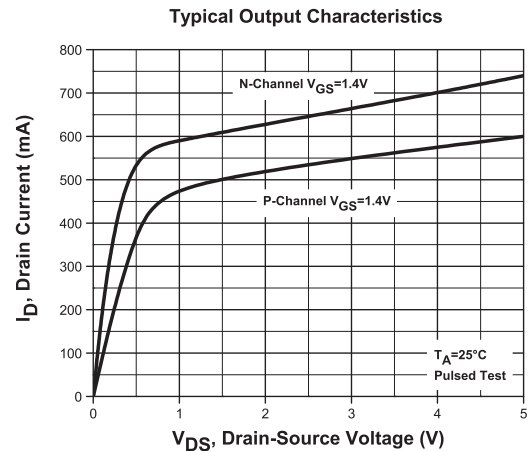
- Space saving miniature package
- Complementary N-Channel and P-Channel devices
- Energy efficiency



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Typical Electrical Characteristics



Samples and Literature



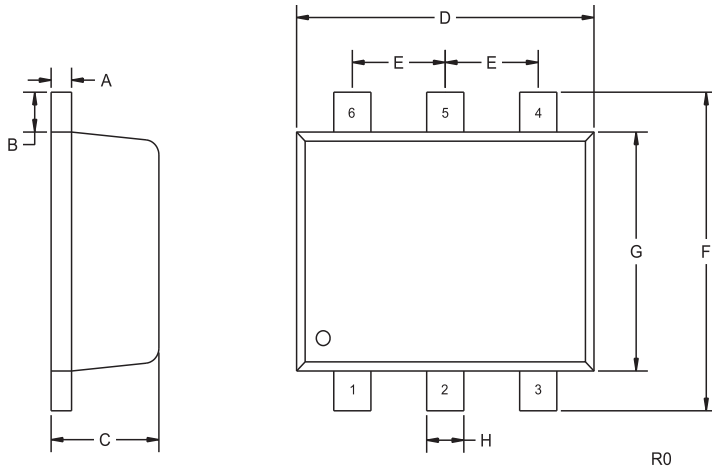
To order samples of this device visit:
www.centrasemi.com/info/CMLDM

| Electrical Characteristics: ($T_A = 25^\circ\text{C}$ unless otherwise noted) | | | | | | | | | | Thermal Characteristics | |
|--------------------------------------------------------------------------------|-------------------|---------------|---------------------|-----|-------------------------------------|-------------------|-------------------|--------------------------|---------------------------|-------------------------|-----------------------------------------------|
| | BV_{DSS} (V) | I_D (mA) | $V_{GS(th)}$ (V) | | $r_{DS(ON)}$ (Ω) MAX | @ V_{GS} (V) | | C_{iss} (pF) MAX | $Q_g(tot)$ (nC) TYP | P_D (mW) MAX | T_J, T_{stg} ($^\circ\text{C}$) MAX |
| | MIN | | MAX | MIN | | MAX | @ I_D (mA) | | | | |
| N-Channel | 20 | 540 | 0.45 | 1.0 | 0.55 0.7 0.9 | 4.5 2.5 1.8 | 540 500 350 | 150 | 1.58 | 350 | -65 to +150 |
| P-Channel | 20 | 430 | 0.45 | 1.0 | 0.9 1.2 2.0 | 4.5 2.5 1.8 | 430 300 150 | 175 | 1.2 | 350 | -65 to +150 |

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Mechanical Drawing - SOT-563

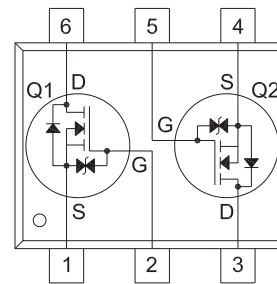


| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.004 | 0.007 | 0.10 | 0.18 |
| B | 0.008 | | 0.20 | |
| C | 0.022 | 0.024 | 0.56 | 0.60 |
| D | 0.059 | 0.067 | 1.50 | 1.70 |
| E | 0.020 | | 0.50 | |
| F | 0.061 | 0.067 | 1.55 | 1.70 |
| G | 0.047 | | 1.20 | |
| H | 0.006 | 0.012 | 0.15 | 0.30 |

SOT-563 (REV: R0)

Pinout

N-Channel

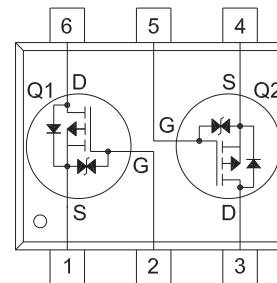


LEAD CODE:

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

MARKING CODE: 7C3

P-Channel

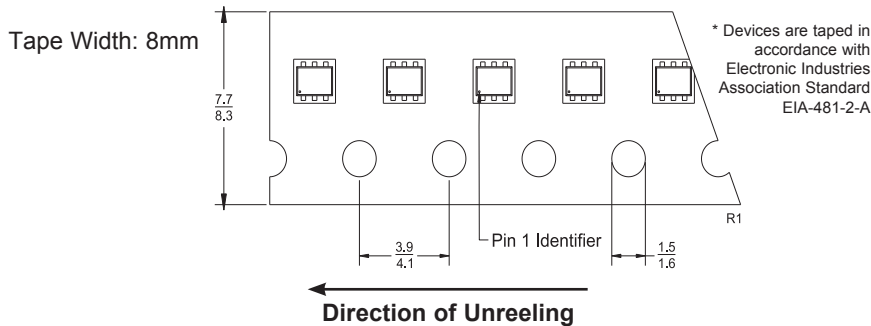


LEAD CODE:

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

MARKING CODE: 77C

Tape Dimensions and Orientation (Dimensions in mm)



Packaging Base

7" Reel = 3,000 pcs. (add TR suffix to part number)

Reel Packing Information

| Reel Size | Reels per Box (Maximum) | Parts per Box (Maximum) | Box Dimensions | | Shipping Weight (Max.) | |
|-----------|-------------------------|-------------------------|----------------|----------|------------------------|----|
| | | | INCH | CM | LB | KG |
| 7" | 3 | 9,000 | 8x7x2 | 20x18x5 | 1 | 1 |
| | 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 |

Sample devices available upon request. To order samples of this device visit: www.centrasemi.com/info/CMLDM



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