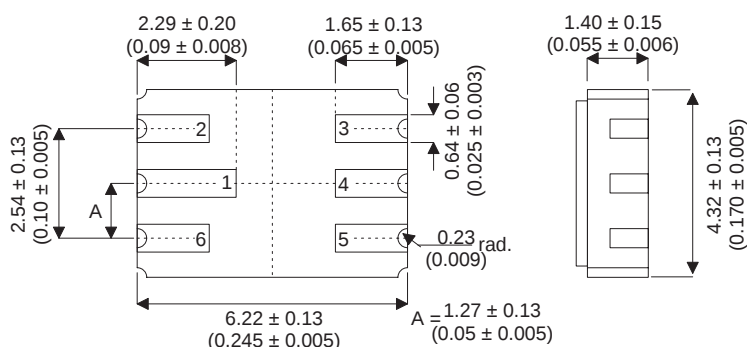


## MECHANICAL DATA

Dimensions in mm (inches)



# DUAL N-CHANNEL ENHANCEMENT MODE MOS TRANSISTOR

## FEATURES

- $V_{(BR)DSS} = 60V$
- $RDS_{(ON)} = 7.5\Omega$
- $I_D = 0.115A$

**CERAMIC  
LCC2 PACKAGE  
(underside view)**

## PAD 1 - Drain 1

## PAD 2 - Gate 1

### PAD 3 - Gate 2

### PAD 4 - Drain 2

**PAD 5 - Source 2**

**PAD 6 - Source 1**

**ABSOLUTE MAXIMUM RATINGS** (T<sub>CASE</sub> = 25°C unless otherwise stated)

|                  |                                         | PER SIDE          | TOTAL DEVICE |
|------------------|-----------------------------------------|-------------------|--------------|
| V <sub>DS</sub>  | Drain – Source Voltage                  | 60V               |              |
| V <sub>GS</sub>  | Gate – Source Voltage                   | ±40V              |              |
| I <sub>D</sub>   | Drain Current                           | ±0.115A           |              |
| I <sub>DM</sub>  | Pulsed Drain Current *                  | 0.8A              |              |
| P <sub>D</sub>   | Power Dissipation                       | 200mW             | 400mW        |
|                  | Derate Above 25°C                       | 1.60mW/°C         | 2.0mW/°C     |
| T <sub>j</sub>   | Operating Junction Temperature Range    | –55 to 150°C      |              |
| T <sub>stg</sub> | Storage Temperature Range               | –55 to 150°C      |              |
| R <sub>θJA</sub> | Thermal Resistance, Junction to Ambient | 625°C/W   250°C/W |              |

\* Pulse width limited by maximum junction temperature.

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## ELECTRICAL CHARACTERISTICS (T<sub>CASE</sub> = 25°C unless otherwise stated)

| Parameter                 |                                  | Test Conditions                                             |                           | Min.                  | Typ. | Max.  | Unit |
|---------------------------|----------------------------------|-------------------------------------------------------------|---------------------------|-----------------------|------|-------|------|
| STATIC CHARACTERISTICS    |                                  |                                                             |                           |                       |      |       |      |
| V <sub>(BR)DSS</sub>      | Gate – Source Breakdown Voltage  | V <sub>GS</sub> = 0V                                        | I <sub>D</sub> = 10μA     | 60                    | 70   |       | V    |
| V <sub>GS(th)</sub>       | Gate Threshold Voltage           | V <sub>DS</sub> = V <sub>GS</sub>                           | I <sub>D</sub> = 0.25mA   | 1                     | 2.15 | 2.5   |      |
| I <sub>GSS</sub>          | Gate – Body Leakage Current      | V <sub>GS</sub> = ±20VV <sub>DS</sub> = 0V                  |                           |                       |      | ±100  | nA   |
| I <sub>DSS</sub>          | Zero Gate Voltage Drain Current  | V <sub>DS</sub> = 60V                                       | V <sub>GS</sub> = 0V      |                       |      | 1     | μA   |
|                           |                                  |                                                             | T <sub>CASE</sub> = 125°C |                       |      | 500   |      |
| I <sub>D(on)*</sub>       | On–State Drain Current           | V <sub>DS</sub> ≥2V <sub>DS(ON)</sub> V <sub>GS</sub> = 10V |                           | 500                   | 1000 |       | mA   |
| R <sub>DS(on)*</sub>      | Drain – Source On Resistance     | V <sub>GS</sub> = 5V                                        |                           |                       | 5    | 7.5   | Ω    |
|                           |                                  | I <sub>D</sub> = 50mA                                       | T <sub>CASE</sub> = 125°C |                       | 9    | 13.5  |      |
|                           |                                  |                                                             |                           | V <sub>GS</sub> = 10V |      | 2.5   |      |
|                           |                                  | I <sub>D</sub> = 0.5A                                       | T <sub>CASE</sub> = 125°C |                       | 4.4  | 13.5  |      |
| V <sub>DS(on)*</sub>      | Drain – Source On Voltage        | V <sub>GS</sub> = 5V I <sub>D</sub> = 50mA                  |                           |                       | 0.25 | 0.375 | V    |
|                           |                                  | V <sub>GS</sub> = 10V                                       |                           |                       | 1.25 | 3.75  |      |
|                           |                                  | I <sub>D</sub> = 0.5A                                       | T <sub>CASE</sub> = 125°C |                       | 2.2  | 6.75  |      |
| g <sub>FS*</sub>          | Forward Transconductance         | V <sub>DS</sub> = 10V                                       | I <sub>D</sub> = 0.2A     | 80                    | 170  |       | ms   |
| g <sub>OS*</sub>          | Common Source Output Conductance | V <sub>DS</sub> = 5V                                        | I <sub>D</sub> = 50mA     |                       | 500  |       | μs   |
| DYNAMIC CHARACTERISTICS   |                                  |                                                             |                           |                       |      |       |      |
| C <sub>iSS</sub>          | Input Capacitance                | V <sub>DS</sub> = 25V<br>V <sub>GS</sub> = 0V<br>f = 1MHz   |                           |                       | 16   | 50    | pF   |
| C <sub>oSS</sub>          | Output Capacitance               |                                                             |                           |                       | 11   | 25    |      |
| C <sub>rSS</sub>          | Reverse Transfer Capacitance     |                                                             |                           |                       | 2    | 5     |      |
| SWITCHING CHARACTERISTICS |                                  |                                                             |                           |                       |      |       |      |
| t <sub>ON</sub>           | Turn–On Time                     | V <sub>DD</sub> = 30V                                       | V <sub>GEN</sub> = 10V    |                       | 7    | 20    | ns   |
| t <sub>OFF</sub>          | Turn–Off Time                    | R <sub>L</sub> = 150Ω                                       | R <sub>G</sub> = 25Ω      |                       | 7    | 20    |      |
|                           |                                  | I <sub>D</sub> = 0.2A                                       |                           |                       |      |       |      |

\* Pulse Test: PW = 80 μs , δ ≤ 1%

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