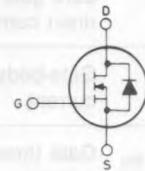


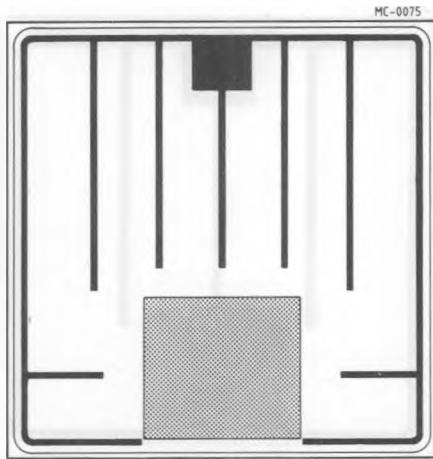
**N - CHANNEL ENHANCEMENT MODE  
POWER MOS TRANSISTOR IN DIE FORM**

- DIE SIZE: 170 × 170 mils
- METALLIZATION:  
Top Al  
Back Au/Cr/Ni/Au
- BACKSIDE THICKNESS: 6100 Å
- DIE THICKNESS: 16 ± 2 mils
- PASSIVATION: P-Vapox
- BONDING PAD SIZE:  
Source 47 × 51 mils  
Gate 15 × 18 mils
- RECOMMENDED WIRE BONDING:  
Source Al - max 20 mils  
Gate Al - max 5 mils

**SCHEMATIC DIAGRAM**


| $V_{DSS}$ | $R_{DS(on)}$ | $I_D^*$ |
|-----------|--------------|---------|
| 50 V      | 0.04 Ω       | 30 A    |

N-channel enhancement mode POWER MOS field effect transistor. Easy drive and very fast switching times make this POWER MOS ideal for high speed switching applications.

*Die geometry*

<sup>\*</sup> With  $R_{thj-c}$  max. 1.67°C/W

GUARANTEED PROBED ELECTRICAL CHARACTERISTICS ( $T_j = 25^\circ\text{C}$ , Note 1)

| Parameters                  |                                   | Test Conditions   |                           | Min. | Typ. | Max.        | Unit                           |
|-----------------------------|-----------------------------------|---|---------------------------|------|------|-------------|--------------------------------|
| $V_{(\text{BR})\text{DSS}}$ | Drain-source breakdown voltage    | $I_D = 250 \mu\text{A}$   | $V_{GS} = 0$              | 50   |      |             | V                              |
| $I_{DSS}$                   | Zero gate voltage drain current   | $V_{DS} = \text{Max Rating}$<br>$V_{DS} = \text{Max Rating} \times 0.8$ | $T_j = 125^\circ\text{C}$ |      |      | 250<br>1000 | $\mu\text{A}$<br>$\mu\text{A}$ |
| $I_{GSS}$                   | Gate-body leakage current         | $V_{GS} = \pm 20 \text{ V}$   |                           |      |      | 100         | nA                             |
| $V_{GS(\text{th})}$         | Gate threshold voltage            | $V_{DS} = V_{GS}$   | $I_D = 1 \text{ mA}$      | 2.1  |      | 4           | V                              |
| $R_{DS(\text{on})}$         | Static drain-source on resistance | $V_{GS} = 10 \text{ V}$   | $I_D = 1 \text{ A}$       |      |      | 0.04        | $\Omega$                       |

NOTES: 1 - Due to probe testing limitations dc parameters only are tested. They are measured using pulse techniques: pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

2 - For detailed device characteristics please refer to the discrete device datasheet