

# SILICON N-CHANNEL MOS FET

**DESCRIPTION:**

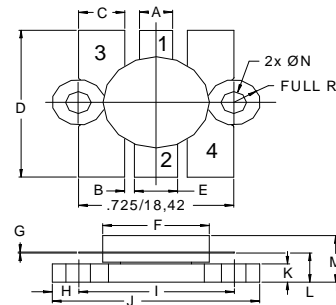
The **ASI 2SK410** is a silicon n-channel mos fet designed for HF/VHF power amplifier applications.

**FEATURES:**

- $P_G = 17$  dB typ. at 100 W/28 MHz
- **Omnigold™** Metalization System
- Common Source configuration
- RoHS compliant

**MAXIMUM RATINGS**

|           |                                 |
|-----------|---------------------------------|
| $I_D$     | 8 A                             |
| $V_{DSS}$ | 180 V                           |
| $V_{GSS}$ | $\pm 20$ V                      |
| $P_{CH}$  | 120 W @ $T_C = 25^\circ C$      |
| $T_{CH}$  | $-55^\circ C$ to $+150^\circ C$ |
| $T_{STG}$ | $-55^\circ C$ to $+150^\circ C$ |

**PACKAGE STYLE .500 6L FLG**


| DIM | MINIMUM<br>inches / mm | MAXIMUM<br>inches / mm |
|-----|------------------------|------------------------|
| A   | .150 / 3.43            | .160 / 4.06            |
| B   | .045 / 1.14            |                        |
| C   | .210 / 5.33            | .220 / 5.59            |
| D   | .835 / 21.21           | .865 / 21.97           |
| E   | .200 / 5.08            | .210 / 5.33            |
| F   | .490 / 12.45           | .510 / 12.95           |
| G   | .003 / 0.08            | .007 / 0.18            |
| H   | .125 / 3.18            |                        |
| I   | .725 / 18.42           |                        |
| J   | .970 / 24.64           | .980 / 24.89           |
| K   | .090 / 2.29            | .105 / 2.67            |
| L   | .150 / 3.81            | .170 / 4.32            |
| M   | .285 / 7.24            |                        |
| N   | .120 / 3.05            | .135 / 3.43            |

1 = COLLECTOR    2 = BASE    3&4 = EMITTER

**CHARACTERISTICS**  $T_C = 25^\circ C$ 

| SYMBOL        | TEST CONDITIONS                  |                   |               | MINIMUM  | TYPICAL | MAXIMUM | UNITS |
|---------------|----------------------------------|-------------------|---------------|----------|---------|---------|-------|
| $V_{(BR)DSS}$ | $I_C = 100$ mA                   |                   |               | 180      |         |         | V     |
| $V_{(BR)GSS}$ | $I_G = \pm 100$ $\mu$ A          | $V_{DS} = 0$ V    |               | $\pm 20$ |         |         | V     |
| $V_{GS(OFF)}$ | $I_D = 1.0$ mA                   | $V_{DS} = 10$ V   |               | 0.5      |         | 3.0     | V     |
| $I_{DSS}$     | $V_{DSS} = 180$ V                | $V_{GS} = 0$ V    |               |          |         | 1.0     | mA    |
| $V_{DS(on)}$  | $I_D = 4.0$ A                    | $V_{GS} = 10$ V   |               |          | 3.8     | 6.0     | V     |
| $ y_{fs} $    | $I_D = 3.0$ A                    | $V_{DS} = 20$ V   |               | 0.9      | 1.25    |         | S     |
| $C_{ISS}$     | $V_{GS} = 5.0$ V                 | $V_{DS} = 0.0$ V  | $f = 1.0$ MHz |          | 350     |         | pF    |
| $C_{OSS}$     | $V_{GS} = -5.0$ V                | $V_{DS} = 50.$ V  | $f = 1.0$ MHz |          | 220     |         |       |
| $C_{RSS}$     | $V_{GS} =$                       | $V_{GD} = -50.$ V | $f = 1.0$ MHz |          | 15      |         |       |
| $P_{OUT}$     | $V_{DD} = 80$ V $f = 28$ MHz     |                   |               | 140      |         |         | W     |
| $\eta$        | $I_{DQ} = 100$ mA $P_{IN} = 5$ W |                   |               |          | 80      |         | %     |