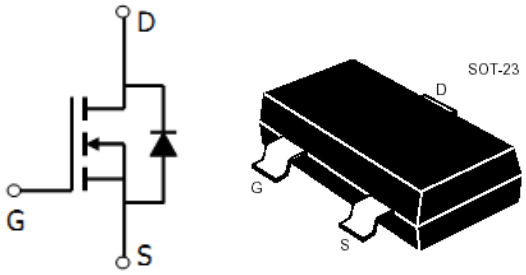
**N-Channel Enhancement-Mode MOSFETs**




## ■MAXIMUM RATINGS

| Characteristic | Symbol | Max | Unit |
|---|---|---|---|
| Drain-Source Voltage | $BV_{DSS}$ | 20 | V |
| Gate- Source Voltage | $V_{GS}$ | ±8 | V |
| Drain Current (continuous) | $I_D$ | 4.2 | A |
| Drain Current (pulsed) | $I_{DM}$ | 16 | A |
| Total Device Dissipation $T_A$=25℃ | $P_D$ | 1200 | mW |
| Junction | $T_J$ | 150 | ℃ |
| Storage Temperature | $T_{stg}$ | -55to+150 | ℃ |

## ■DEVICE MARKING

| |
|---|
| **SL3414A=A14** |

## ■ELECTRICAL CHARACTERISTICS

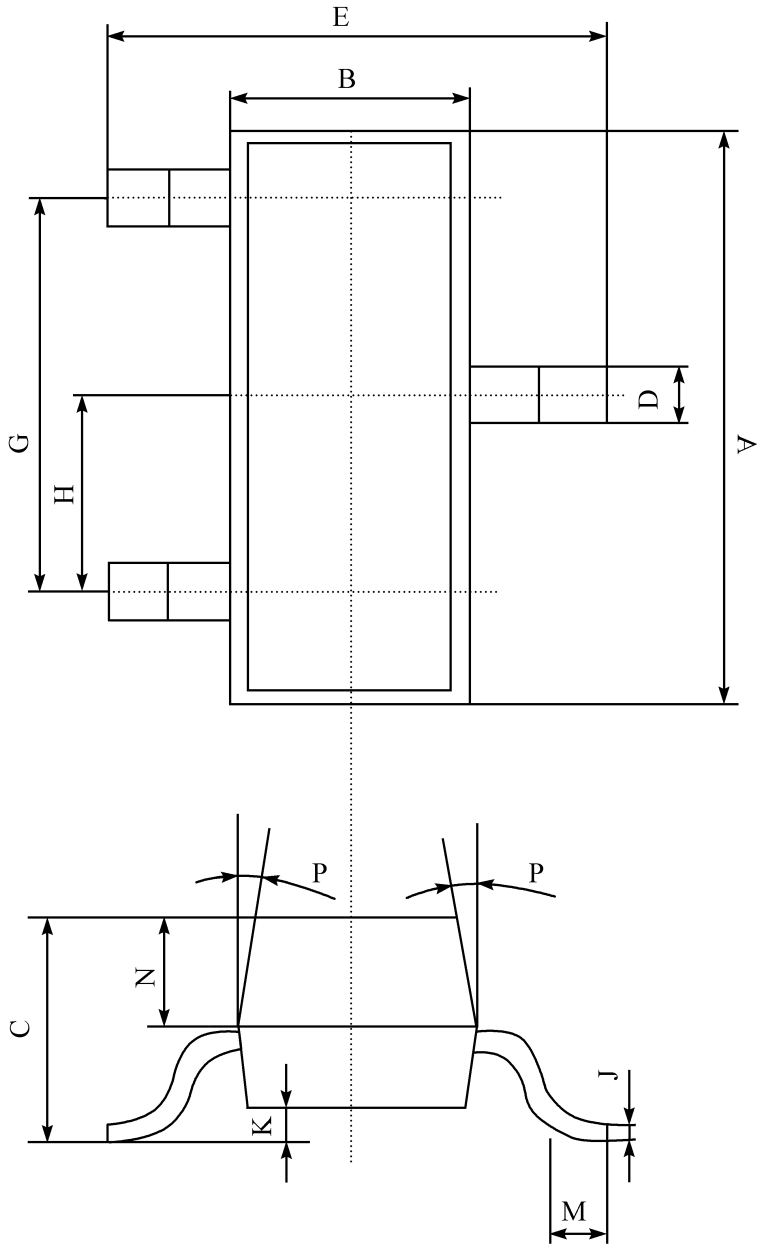
($T_A$=25℃ unless otherwise noted )

| Characteristic | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|
| Drain-Source Breakdown Voltage<br>($I_D$ = 250uA,$V_{GS}$=0V) | $BV_{DSS}$ | 20 | — | — | V |
| Gate Threshold Voltage<br>($I_D$ = 250uA,$V_{GS}$= $V_{DS}$) | $V_{GS(th)}$ | 0.4 | 0.6 | 1 | V |
| Diode Forward Voltage Drop<br>($I_S$= 1A,$V_{GS}$=0V) | $V_{SD}$ | — | — | 1 | V |
| Zero Gate Voltage Drain Current<br>($V_{GS}$=0V, $V_{DS}$= 16V)<br>($V_{GS}$=0V, $V_{DS}$= 16V, $T_A$=55℃) | $I_{DSS}$ | — | — | 1<br>5 | uA |
| Gate Body Leakage<br>($V_{GS}$=±8V, $V_{DS}$=0V) | $I_{GSS}$ | — | — | ±100 | nA |
| Static Drain-Source On-State Resistance<br>($I_D$=4.2A,$V_{GS}$=4.5V)<br>($I_D$=3.7A,$V_{GS}$=2.5V)<br>($I_D$=3.2A,$V_{GS}$=1.8V) | $R_{DS(ON)}$ | — | 41<br>52<br>67 | 50<br>63<br>87 | mΩ |
| Input Capacitance<br>($V_{GS}$=0V, $V_{DS}$= 10V,f=1MHz) | $C_{ISS}$ | — | 436 | — | pF |
| Common Source Output Capacitance<br>($V_{GS}$=0V, $V_{DS}$= 10V,f=1MHz) | $C_{OSS}$ | — | 66 | — | pF |
| Turn-ON Time<br>($V_{DS}$= 10V, $V_{GS}$=5V, $R_{GEN}$=6Ω) | $t_{(on)}$ | — | 5.5 | — | ns |
| Turn-OFF Time<br>($V_{DS}$= 10V, $V_{GS}$=5V, $R_{GEN}$=6Ω) | $t_{(off)}$ | — | 40 | — | ns |

Pulse Width≤300 μs; Duty Cycle≤2.0%

## ■DIMENSION

(UNIT)：mm




| 序號 | 數值及公差 |
|---|---|
| A | 2.90±0.10 |
| B | 1.30±0.10 |
| C | 1.00±0.10 |
| D | 0.40±0.10 |
| E | 2.40±0.20 |
| G | 1.90±0.10 |
| H | 0.95±0.05 |
| J | 0.13±0.05 |
| K | 0.00-0.10 |
| M | ≥0.2 |
| N | 0.60±0.10 |
| P | 7±2° |