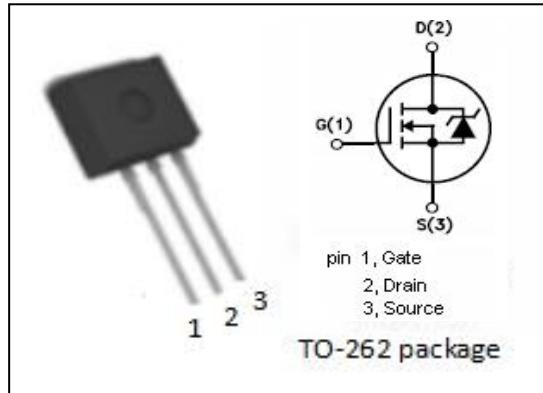


## isc N-Channel MOSFET Transistor

**2SK1623L**

### • FEATURES

- With TO-262 packaging
- High speed switching
- Low driving power
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



### • APPLICATIONS

- Power supply
- Switching applications

### • ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

| SYMBOL    | PARAMETER                      | VALUE    | UNIT             |
|-----------|--------------------------------|----------|------------------|
| $V_{DSS}$ | Drain-Source Voltage           | 100      | V                |
| $V_{GS}$  | Gate-Source Voltage            | $\pm 20$ | V                |
| $I_D$     | Drain Current-Continuous       | 20       | A                |
| $I_{DM}$  | Drain Current-Single Pulsed    | 80       | A                |
| $P_D$     | Total Dissipation              | 50       | W                |
| $T_J$     | Operating Junction Temperature | -55~150  | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature            | -55~150  | $^\circ\text{C}$ |

### • THERMAL CHARACTERISTICS

| SYMBOL         | PARAMETER                          | MAX | UNIT                      |
|----------------|------------------------------------|-----|---------------------------|
| $R_{th(ch-c)}$ | Channel-to-case thermal resistance | 1.3 | $^\circ\text{C}/\text{W}$ |

## isc N-Channel MOSFET Transistor

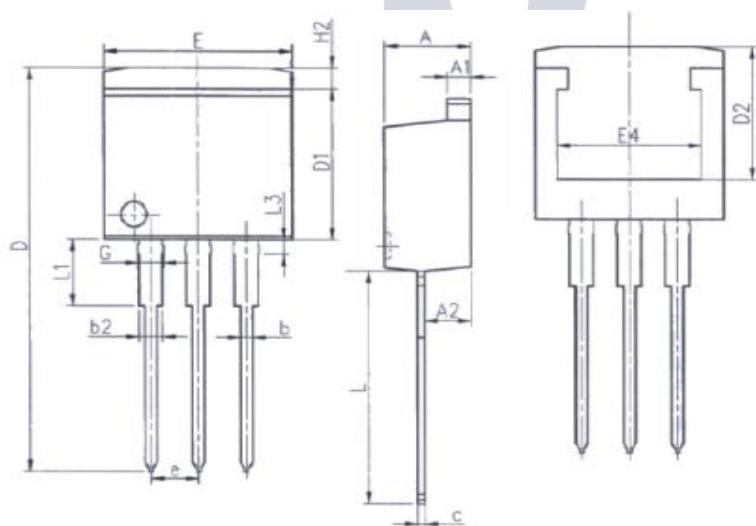
**2SK1623L**

### ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

| SYMBOL              | PARAMETER                      | CONDITIONS  | MIN | TYP | MAX  | UNIT |
|---------------------|--------------------------------|---|-----|-----|------|------|
| BV <sub>DSS</sub>   | Drain-Source Breakdown Voltage | V <sub>GS</sub> =0V; I <sub>D</sub> = 10mA                        | 100 |     |      | V    |
| V <sub>GS(th)</sub> | Gate Threshold Voltage         | V <sub>DS</sub> =10V; I <sub>D</sub> =1mA                         | 1.0 |     | 2.0  | V    |
| R <sub>DS(on)</sub> | Drain-Source On-Resistance     | V <sub>GS</sub> = 10V; I <sub>D</sub> =10A                        |     | 65  | 85   | mΩ   |
| I <sub>GSS</sub>    | Gate-Source Leakage Current    | V <sub>GS</sub> = ±16V; V <sub>DS</sub> = 0V                      |     |     | ±10  | μA   |
| I <sub>DSS</sub>    | Drain-Source Leakage Current   | V <sub>DS</sub> = 80V; V <sub>GS</sub> = 0V; T <sub>c</sub> =25°C |     |     | 250  | μA   |
| V <sub>SDF</sub>    | Diode forward voltage          | I <sub>SD</sub> =50A, V <sub>GS</sub> = 0 V                       |     |     | 2.18 | V    |

### DIMENSIONAL DRAWING



| Unit: mm |       |       |
|----------|-------|-------|
| Symbol   | Min.  | Max.  |
| A        | 4.37  | 4.77  |
| A1       | 1.22  | 1.42  |
| A2       | 2.47  | 2.87  |
| b        | 0.70  | 0.97  |
| b2       | 1.17  | 1.42  |
| c        | 0.28  | 0.53  |
| D        | 23.20 | 24.02 |
| D1       | 8.38  | 8.90  |
| D2       | 6.00  | -     |

| Unit: mm |         |       |
|----------|---------|-------|
| Symbol   | Min.    | Max.  |
| E        | 9.90    | 10.39 |
| E4       | 7.30    | -     |
| e        | 2.54BSC |       |
| G        | 1.25    | 1.50  |
| H2       | -       | 1.31  |
| L        | 13.34   | 14.10 |
| L1       | 3.30    | 4.06  |
| L3       | 0.95    | 1.15  |

**isc N-Channel MOSFET Transistor****2SK1623L****NOTICE:**

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