

isc N-Channel MOSFET Transistor

2SK3919-ZK

FEATURES

- Drain Current : I_D= 64A@ T_C=25 $^\circ\!\mathrm{C}$
- Drain Source Voltage : V_{DSS}= 25V(Min)
- Static Drain-Source On-Resistance
- : R_{DS(on)} = 5.6m Ω (Max) @V_{GS}=10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

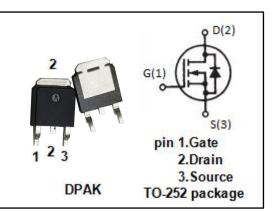
 motor drive, DC-DC converter, power switch and solenoid drive.

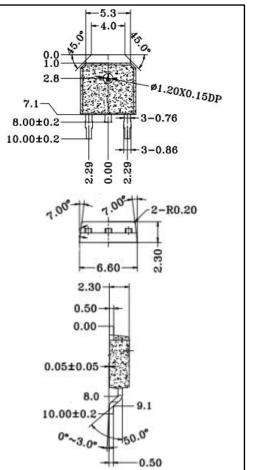
| SYMBOL | PARAMETER VALUE | | UNIT | | |
|------------------|-------------------------------------|---------|------|--|--|
| V _{DSS} | Drain-Source Voltage | 25 | V | | |
| V _{GS} | Gate-Source Voltage-Continuous ±20 | | V | | |
| ID | Drain Current-Continuous 64 | | A | | |
| I _{DM} | Drain Current-Single Pluse 256 | | A | | |
| P _D | Total Dissipation @Tc=25℃ | 36 | W | | |
| TJ | Max. Operating Junction Temperature | -55~150 | °C | | |
| T _{stg} | Storage Temperature | -55~150 | °C | | |

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | МАХ | UNIT |
|---------------------|--------------------------------------|------|------|
| R _{th j-c} | Thermal Resistance, Junction to Case | 3.47 | °C/W |





isc website: <u>www.iscsemi.com</u>

¹ *isc & iscsemi* is registered trademark



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ELECTRICAL CHARACTERISTICS

$T_c=25^{\circ}C$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | МАХ | UNIT |
|----------------------|---------------------------------|---|-----|-------------|------|
| V _{(BR)DSS} | Drain-Source Breakdown Voltage | V _{GS} = 0; I _D = 1mA | 25 | | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | V _{DS} = 10V; I _D = 1mA | 2.0 | 3.0 | V |
| R _{DS} (on) | Drain-Source On-Resistance | V _{GS} = 10V; I _D = 32A V _{GS} = 5V; I _D = 16A | | 5.6 13.7 | mΩ |
| I _{GSS} | Gate-Body Leakage Current | V _{GS} = ±20V;V _{DS} = 0 | - | ±0.1 | uA |
| I _{DSS} | Zero Gate Voltage Drain Current | V_{DS} = 25V; V_{GS} = 0 | - | 10 | uA |
| V _{SD} | Forward On-Voltage | I _S = 64A; V _{GS} = 0 | - | 1.5 | V |

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