

# isc N-Channel MOSFET Transistor

# 2SK3915-01MR

### **FEATURES**

- Drain Current : I<sub>D</sub>= 6A@ T<sub>C</sub>=25℃
- Drain Source Voltage
  - : V<sub>DSS</sub>= 450V(Min)
- · Static Drain-Source On-Resistance
  - :  $R_{DS(on)} = 1.2 \Omega (Max) @V_{GS} = 10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### **DESCRIPTION**

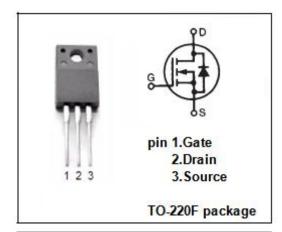
 motor drive, DC-DC converter, power switch and solenoid drive.

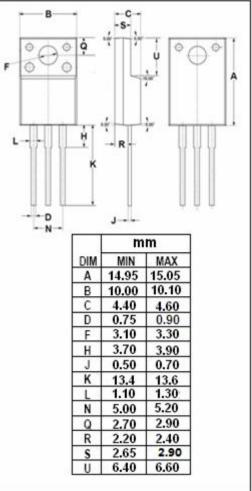
### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	450	V
V <sub>GS</sub>	Gate-Source Voltage-Continuous	±30	V
I <sub>D</sub>	Drain Current-Continuous	6.0	А
I <sub>DM</sub>	Drain Current-Single Pluse	24	Α
P <sub>D</sub>	Total Dissipation @Tc=25℃	90	W
TJ	Max. Operating Junction Temperature	-55~150	$^{\circ}$
T <sub>stg</sub>	Storage Temperature	-55~150	${\mathbb C}$

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.389	°C/W







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#### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA	450		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> = 1mA	3.0	5.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 3A		1.2	Ω
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±30V;V <sub>DS</sub> = 0		±0.1	uA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 450V; V <sub>GS</sub> = 0		25	uA
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> = 6A; V <sub>GS</sub> = 0		1.5	V



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