

# isc N-Channel MOSFET Transistor

## 2SK3310

### FEATURES

- Drain Current : I\_D= 10A@ T\_C=25 $^\circ\!\mathrm{C}$
- Drain Source Voltage : V<sub>DSS</sub>= 450V(Min)
- Static Drain-Source On-Resistance
- : R<sub>DS(on)</sub> = 0.65 Ω (Max) @ V<sub>GS</sub>= 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			
ID	Drain Current-Continuous	10	A			
I <sub>DM</sub>	Drain Current-Single Pluse 40		A			
PD	Total Dissipation @Tc=25℃	40	W			
TJ	Max. Operating Junction Temperature	-55~150	°C			
T <sub>stg</sub>	Storage Temperature	-55~150	°C			

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

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

PARAMETER

Thermal Resistance, Junction to Case

MAX

3.13

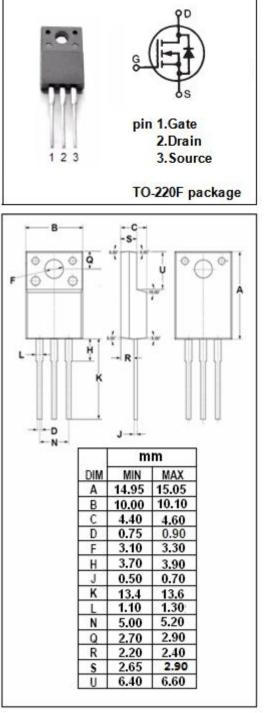
UNIT

°C/W

THERMAL CHARACTERISTICS

SYMBOL

Rth j-c





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### **ELECTRICAL CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	МАХ	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 10mA	450		V
$V_{GS(th)}$	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> = 1mA	3	5	V
R <sub>DS</sub> (on)	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 5A		0.65	Ω
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±25V;V <sub>DS</sub> = 0		±10	uA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 450V; V <sub>GS</sub> = 0		0.1	mA
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> = 10A; V <sub>GS</sub> = 0		1.7	V

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