

# isc N-Channel MOSFET Transistor

## 2SK3650-01SJ

### FEATURES

- Drain Current : I\_D= 33A@ T\_C=25 $^\circ\!\mathrm{C}$
- Drain Source Voltage : V<sub>DSS</sub>= 150V(Min)
- Static Drain-Source On-Resistance
- : R<sub>DS(on)</sub> = 70m Ω (Max) @ V<sub>GS</sub>= 10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### DESCRIPTION

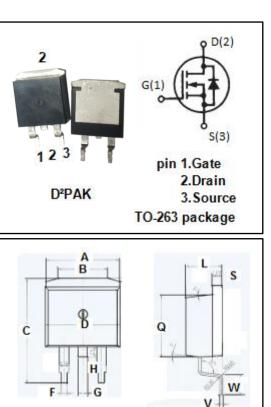
 motor drive, DC-DC converter, power switch and solenoid drive.

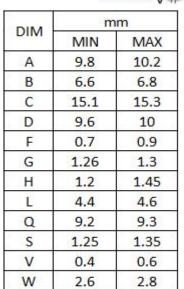
ABSOLUT	E MAXIMUM RA	TINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	150	V
V <sub>GS</sub>	Gate-Source Voltage-Continuous	±30	V
ID	Drain Current-Continuous	33	A
I <sub>DM</sub>	Drain Current-Single Pluse	132	A
PD	Total Dissipation @Tc=25℃	150	W
TJ	Max. Operating Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature	-55~150	°C

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	0.833	°C/W





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

<sup>1</sup> *isc & iscsemi* is registered trademark



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### **ELECTRICAL CHARACTERISTICS**

#### T<sub>c</sub>=25℃ 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> = 0.25mA	150		V
V <sub>GS</sub> (th)	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> = 0.25mA	3.0	5.0	V
R <sub>DS</sub> (on)	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 11.5A		70	mΩ
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> = 150V; V <sub>GS</sub> = 0		25	uA
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> = 23A; V <sub>GS</sub> = 0		1.65	V

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