

# isc N-Channel MOSFET Transistor

2SK3511-Z

### **FEATURES**

- Drain Current : I<sub>D</sub>= 83A@ T<sub>C</sub>=25 ℃
- Drain Source Voltage
  - : V<sub>DSS</sub>= 75V(Min)
- Static Drain-Source On-Resistance
  - :  $R_{DS(on)} = 12.5 \text{m} \Omega \text{ (Max)} @ V_{GS} = 10 \text{V}$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### **DESCRIPTION**

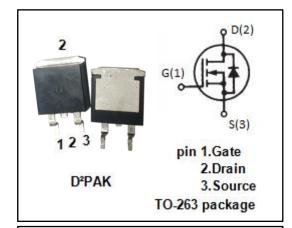
 motor drive, DC-DC converter, power switch and solenoid drive.

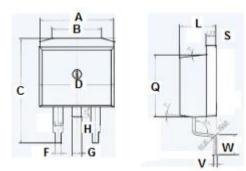
### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	75	V
V <sub>GS</sub>	Gate-Source Voltage-Continuous	±20	V
I <sub>D</sub>	Drain Current-Continuous	83	А
I <sub>DM</sub>	Drain Current-Single Pluse	260	А
P <sub>D</sub>	Total Dissipation @T <sub>C</sub> =25℃	100	W
TJ	Max. Operating Junction Temperature	-55~150	${\mathbb C}$
T <sub>stg</sub>	Storage Temperature -55~		$^{\circ}$

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.25	°C/W





DIM	m	m
DIIVI	MIN	MAX
Α	9.8	10.2
В	6.6	6.8
C	15.1	15.3
D	9.6	10
F	0.7	0.9
G	1.26	1.3
Н	1.2	1.45
L	4.4	4.6
Q	9.2	9.3
S	1.25	1.35
V	0.4	0.6
W	2.6	2.8

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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> = 1mA	75		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> = 1mA	2	4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	VGS= 10V; ID= 42A		12.5	mΩ
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> = 0		±10	uA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =75V; V <sub>GS</sub> = 0		10	uA
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> = 83A; V <sub>GS</sub> = 0		1.1	V



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