

# isc N-Channel MOSFET Transistor

## DKI04103

### FEATURES

- Drain Current –I\_D=29A@ T\_C=25 $^\circ\!\mathrm{C}$
- Drain Source Voltage-: V<sub>DSS</sub>=40V(Min)
- Static Drain-Source On-Resistance
- : R<sub>DS(on)</sub> = 11.8m Ω (Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### DESCRIPTION

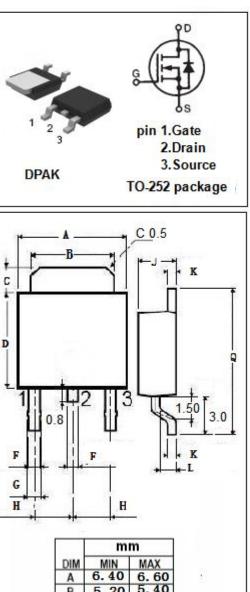
• Designed for use in switch mode power supplies and general purpose applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25 C)						
SYMBOL	PARAMETER	VALUE	UNIT			
V <sub>DSS</sub>	Drain-Source Voltage	40	V			
$V_{GS}$	Gate-Source Voltage-Continuous	±20	V			
ID	Drain Current-Continuous	29	A			
PD	Total Dissipation @T <sub>c</sub> =25℃	32	W			
TJ	Max. Operating Junction Temperature	x. Operating Junction Temperature 150				
T <sub>stg</sub>	Storage Temperature -55~150		°C			

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	3.9	°C/W



DIM	MIN	MAX
Α	6.40	6.60
В	5.20	5.40
С	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
Н	2.10	2.50
J	2.10	2.40
κ	0.40	0.60
L	0.90	1.10
	9,90	10.1

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



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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 <sub>GS</sub> = 0; I <sub>D</sub> = 0.1mA	40		V
$V_{GS(th)}$	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> =0.25mA	1	2.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 18.8A		11.8	mΩ
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> = 0		±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =40V; V <sub>GS</sub> = 0		100	μA
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> =18.8A; V <sub>GS</sub> = 0		1.5	V

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