

### isc N-Channel MOSFET Transistor

# 2SK1448

#### DESCRIPTION

- Drain Current  $-I_D$ =8A@  $T_C$ =25  $^{\circ}C$
- Drain Source Voltage-
- : V<sub>DSS</sub>=450 (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation





### APPLICATIONS

• Designed especially for high voltage, high speed applications, such as off-line switching power supplies, UPS, AC and DC motor controls, relay and solenoid drivers.

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

SYMBOL	ARAMETER	VALUE	UNI T
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	450	V
V <sub>GS</sub>	Gate-Source Voltage	±30	V
I <sub>D</sub>	Drain Current-continuous@ TC=25℃	8	А
P <sub>tot</sub>	Total Dissipation@TC=25°C	100	W
Tj	Max. Operating Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C

	mm			
MIC	MIN	MAX		
Α	19.60	20.10		
В	15.50	15.70		
С	4.70	4.90		
D	0.90	1.10		
Ε	1.90	2.10		
F	3.40	3.60		
G	2.90	3.20		
Н	3.20	3.40		
J	0.595	0.605		
Κ	20.00	20.70		
L	1.90	2.20		
N	10.89	10.91		
Q	4.90	5.10		
R	3.35	3.45		
S	1.995	2.100		
U	5.90	6.10		
Y	9.90	10.10		

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SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	МАХ	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0; I <sub>D</sub> = 10mA	450			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =10V; I <sub>D</sub> =1mA	2.0		3.0	V
R <sub>DS(on)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =4A		0.6	0.8	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±30V;V <sub>DS</sub> = 0			±100	nA
IDSS	Zero Gate Voltage Drain Current	V <sub>DS</sub> =450V; V <sub>GS</sub> = 0			1	mA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>F</sub> =8A; V <sub>GS</sub> =0			1.8	V
tr	Rise time			40		ns
ton	Turn-on time	V <sub>GS</sub> =10V;I <sub>D</sub> =4A;R <sub>L</sub> =50 Ω		60		ns
tf	Fall time			60		ns
toff	Turn-off time			220		ns

### • ELECTRICAL CHARACTERISTICS (Tc=25°C)

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