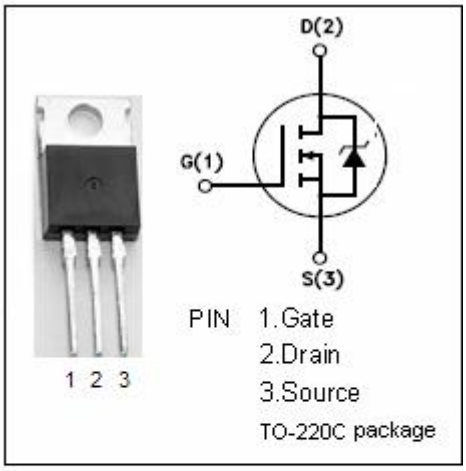
isc N-Channel MOSFET Transistor 2SK440



DESCRIPTION

- Drain Current –I_D=6A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=200V(Min)
- Fast Switching Speed

APPLICATIONS

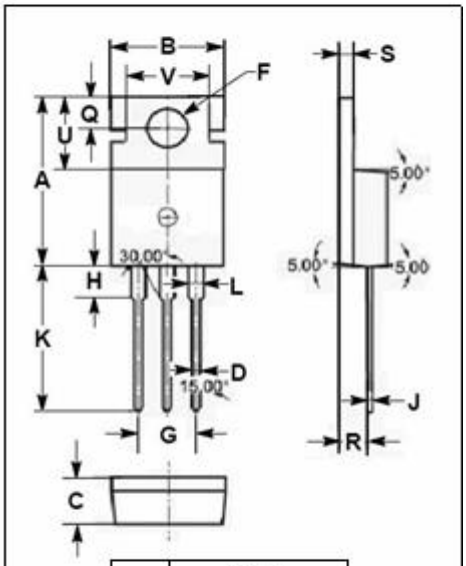
- Designed especially for low voltage,high speed applications, such as off-line switching power supplies , UPS,AC and DC motor controls,relay and solenoid drivers.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	200	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=25℃	6	A
P_{tot}	Total Dissipation@TC=25℃	40	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.67	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	62.5	℃/W



DIM	mm MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

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• **ELECTRICAL CHARACTERISTICS (T_C=25℃)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}=0; I_D= 10mA	200			V
$V_{GS(TH)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D= 1mA	2		5	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	V_{GS}= 15V; I_D=3A		0.4	0.5	Ω
$V_{DS(ON)}$	Drain-Source Saturation Voltage	I_F= 3A; V_{GS}=15V		1.2	1.5	V
V_{SD}	Drain Forward Voltage	I_F= 3A; V_{GS}=0		0.9		
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±20V; V_{DS}= 0			±1	uA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=160V; V_{GS}= 0			1	mA
tr	Rise time	V_{GS}=15V;I_D=2A; R_L=15Ω		25		ns
ton	Turn-on time			50		ns
tf	Fall time			40		ns
toff	Turn-off time			110		ns