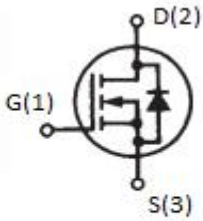
isc N-Channel MOSFET Transistor 2SK4146



pin 1.Gate
2.Drain
3.Source
TO-220 package

FEATURES

- Drain Current : I_D= 80A@ T_C=25℃
- Drain Source Voltage
  : V_{DSS}= 75V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 10.1mΩ (Max) @ V_{GS}= 10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

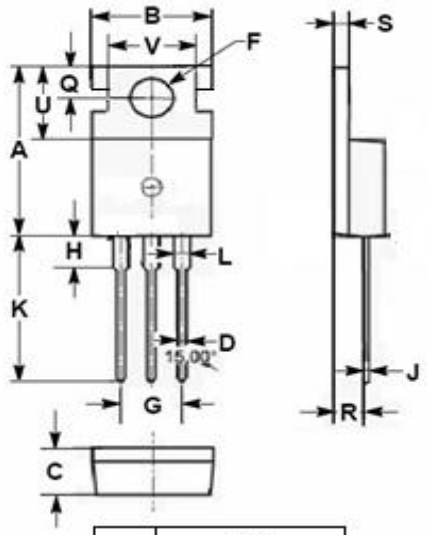
- motor drive, DC-DC converter, power switch and solenoid drive.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	75	V
V_{GS}	Gate-Source Voltage-Continuous	±20	V
I_D	Drain Current-Continuous	80	A
I_{DM}	Drain Current-Single Pluse	200	A
P_D	Total Dissipation @T_C=25℃	84	W
T_J	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.49	℃/W



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 1.0mA	75	--	V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D= 1.0mA	2.0	4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 40A	--	10.1	mΩ
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0	--	±0.1	uA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 75V; V_{GS}= 0	--	10	uA
V_{SD}	Forward On-Voltage	I_S= 80A; V_{GS}= 0	--	1.5	V