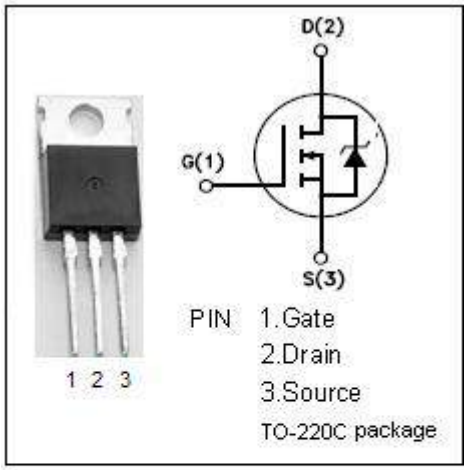
isc N-Channel MOSFET Transistor 2SK1643



DESCRIPTION

- Drain Current –I_D=5A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=900 (Min)
- Fast Switching Speed

APPLICATIONS

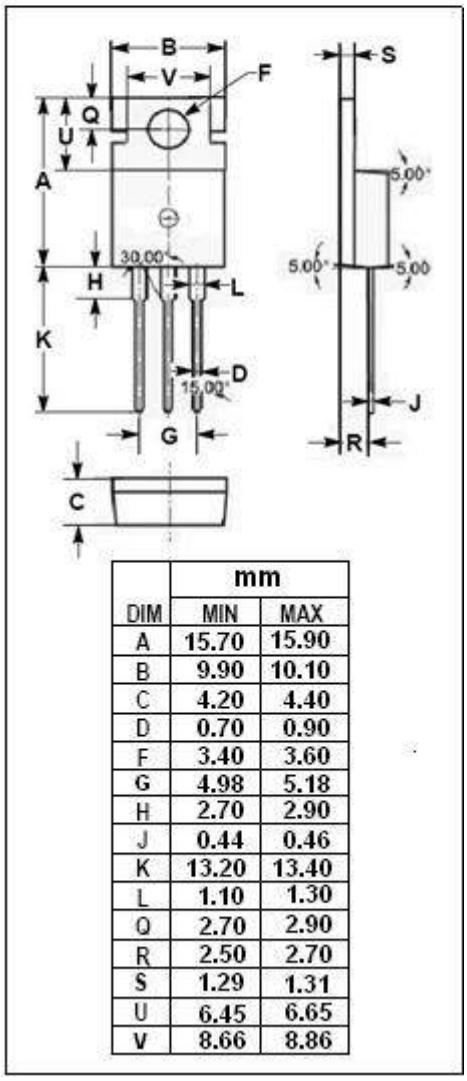
- high speed high current switching applications
- DC-DC converter and motor driver applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	900	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-continuous@ TC=25℃	5	A
P_{tot}	Total Dissipation@TC=25℃	125	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth j-c	Thermal Resistance,Junction to Case	1.00	℃/W
Rth j-a	Thermal Resistance,Junction to Ambient	83.3	℃/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	900			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=10V; I_D=1mA	1.5		3.5	V
$R_{DS(on)}$	Drain-Source On-stage Resistance	V_{GS}=10V; I_D=2A		2.5	2.8	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±25V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=720V; V_{GS}= 0			300	uA
V_{SD}	Diode Forward Voltage	I_F=4A; V_{GS}=0			1.9	V
tr	Rise time	V_{GS}=10V;I_D=2A;R_L=200Ω		18	35	ns
ton	Turn-on time			30	60	ns
tf	Fall time			12	25	ns
toff	Turn-off time			70	140	ns