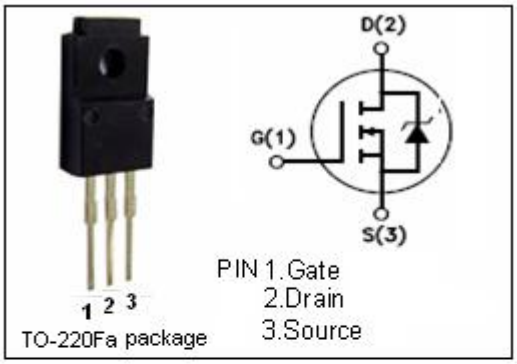
isc N-Channel MOSFET Transistor 2SK1833



DESCRIPTION

- Drain Current I_D= 2.5A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=500V(Min)
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

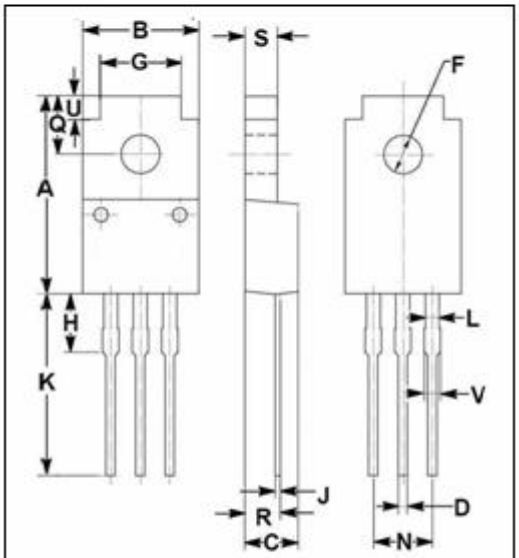
- Diving circuit for a solenoid and motor
- Control equipment
- Switching power supply

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	500	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-continuous@ TC=25℃	2.5	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	3.125	℃/W



DIM	mm MIN	mm MAX
A	16.85	17.15
B	9.54	10.10
C	4.35	4.65
D	0.75	0.90
F	3.20	3.40
G	6.90	7.20
H	3.80	4.20
J	0.45	0.75
K	13.35	13.80
L	1.10	1.30
N	4.98	5.18
Q	4.85	5.15
R	2.55	3.25
S	2.70	2.90
U	1.75	2.05
V	1.30	1.50

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 1mA	500			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 25V; I_D=1mA	2.0		5.0	V
V_{DF}	Body to drain diode forward voltage	I_S= 2.5A, V_{GS} = 0			1.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 1.5A		3.2	4.0	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±30V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=400V; V_{GS}= 0			1	μA
C_{iss}	Input Capacitance	V_{DS}=20V; V_{GS}=0V; f_T=1MHz		300	400	pF
C_{rss}	Reverse Transfer Capacitance			20	23	
C_{oss}	Output Capacitance			55	48	
t_{on}	Turn-on Time	V_{GS}=10V; I_D=1.5A; V_{DD}=150V; R_L=100Ω		40		ns
t_f	Fall Time			30		
t_{off}	Turn-off Time			55		

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