

isc N-Channel MOSFET Transistor

2SK1834

DESCRIPTION

- Drain Current $I_D = 2A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 800V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

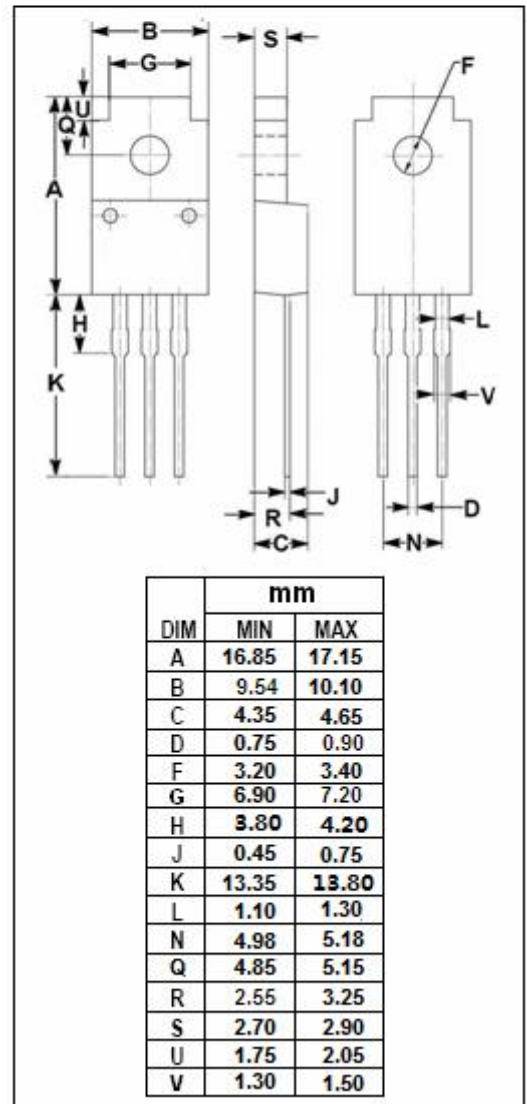
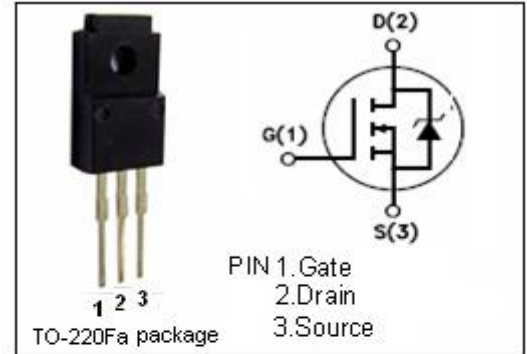
- Diving circuit for a solenoid and motor
- Control equipment
- Switching power supply

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	800	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	2	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	40	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.125	$^\circ C/W$



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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 1mA	800			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 = 2A, V _{GS} = 0			1.3	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 1A		4.8	7	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0			±1	μA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =640V; V _{GS} = 0			1	mA
C _{iss}	Input Capacitance	V _{DS} =20V;		350		pF
C _{rss}	Reverse Transfer Capacitance	V _{GS} =0V; f _T =1MHz		25		
C _{oss}	Output Capacitance			60		
t _{on}	Turn-on Time	V _{GS} =10V; I _D =1A;		35		ns
t _f	Fall Time	V _{DD} =200V;		25		
t _{off}	Turn-off Time	R _L =200Ω		60		

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