

isc N-Channel MOSFET Transistor
2SK1974
DESCRIPTION

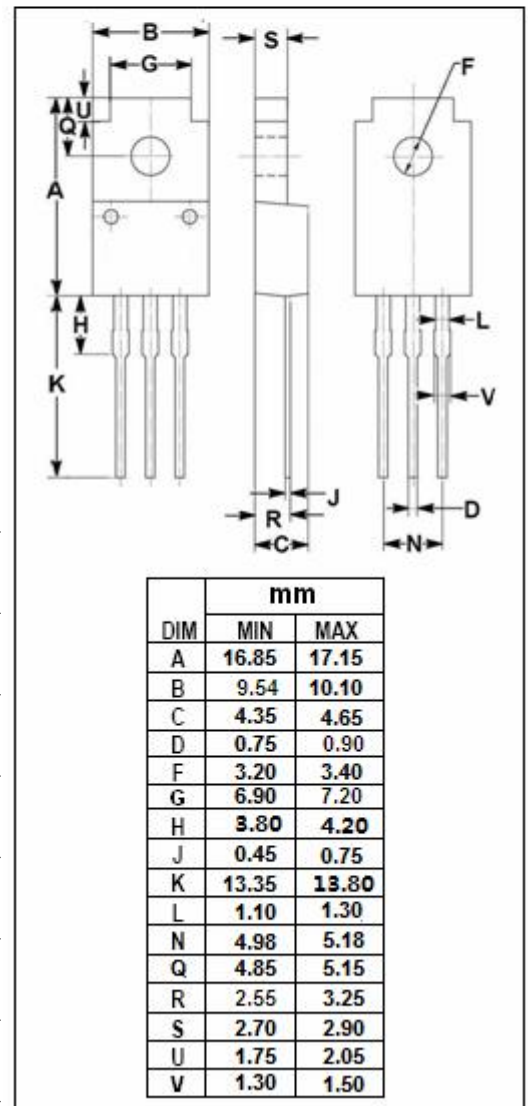
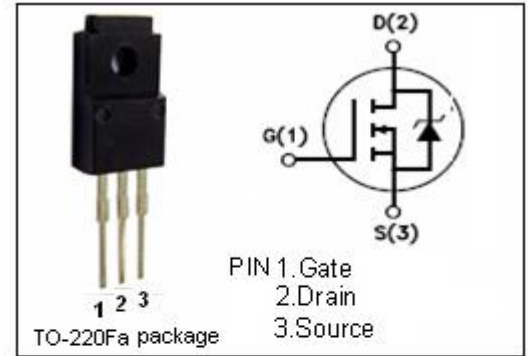
- Drain Current $I_D = 10A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 60V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching application

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	60	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	10	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	30	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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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	60			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = 10V; I _D =1mA	2.0		4.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 1A			0.35	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =60V; V _{GS} = 0			100	μA
C _{iss}	Input capacitance	V _{DS} =10V;		1400		pF
C _{rss}	Reverse transfer capacitance	V _{GS} =0V; f _T =1MHz		150		
C _{oss}	Output capacitance			600		
t _r	Rise time	V _{GS} =10V;		80		ns
t _{d(on)}	Turn-on Delay Time	I _D =5A;		30		
t _f	Fall Time	V _{DD} =30V; R _L =6 Ω		60		
t _{d(off)}	Turn-off Delay Time			60		

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