

isc N-Channel MOSFET Transistor

2SK531

DESCRIPTION

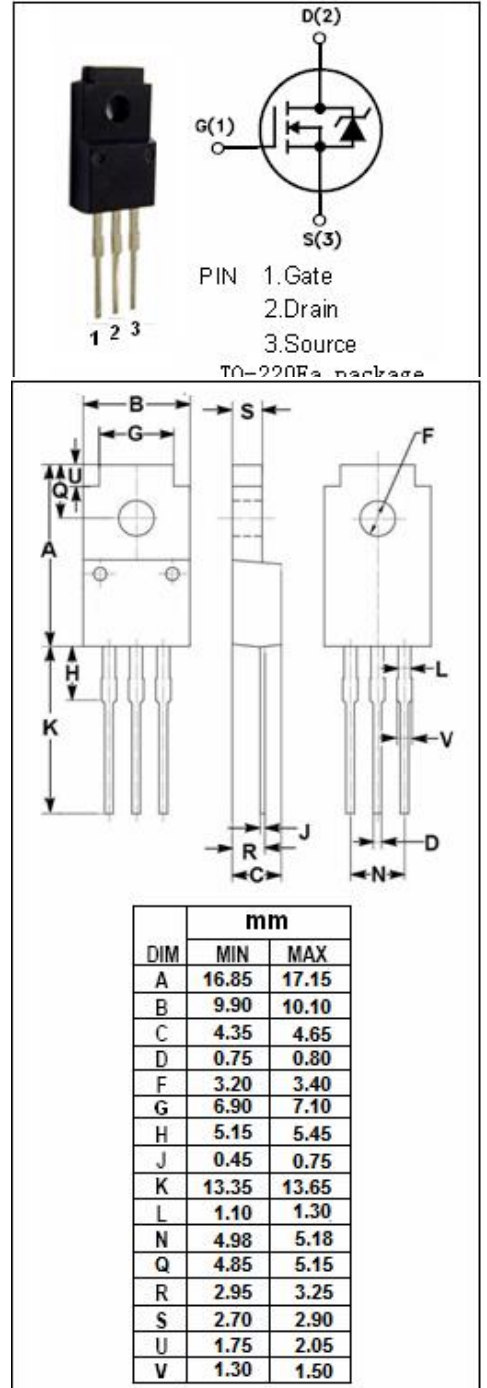
- Drain Current $-I_D=5A @ T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}=450V(\text{Min})$
- Fast Switching Speed

APPLICATIONS

- Designed especially for high voltage,high speed applications, such as off-line switching power supplies , UPS,AC and DC motor controls,relay and solenoid drivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	450	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C=25^\circ C$	5	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	$^\circ C$



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• ELECTRICAL CHARACTERISTICS (T_C=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0; I _D = 10mA	450			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 =3A		1.1	1.6	Ω
V _{DS(ON)}	Drain-Source Saturation Voltage	I _F = 8A; V _{GS} =10V		12	22	V
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =450V; V _{GS} = 0			1	mA
t _r	Rise time	V _{GS} =10V; I _D =2A; R _L =50 Ω		25	50	ns
t _{on}	Turn-on time			40	80	ns
t _f	Fall time			35	70	ns
t _{off}	Turn-off time			140	280	ns