

isc N-Channel MOSFET Transistor

2SK549

DESCRIPTION

- Drain Current $-I_D = 10A @ T_C = 25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS} = 60V (Min)$
- Fast Switching Speed

APPLICATIONS

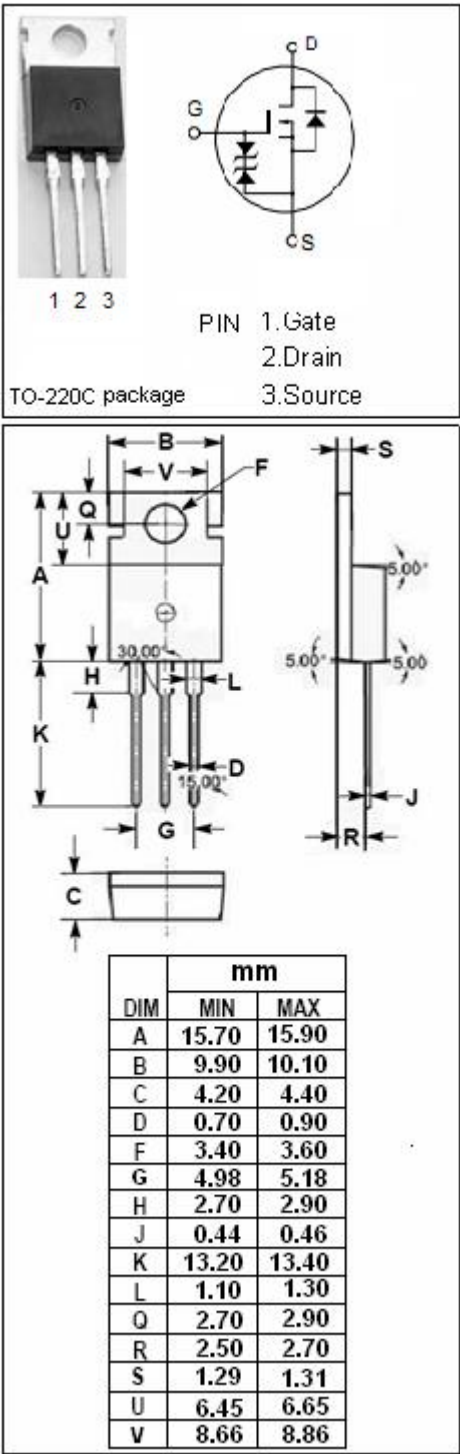
- high speed power switching

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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	60	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $TC = 25^{\circ}C$	10	A
P_{tot}	Total Dissipation@ $TC = 25^{\circ}C$	50	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	1.0	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^{\circ}C/W$



isc N-Channel Mosfet Transistor**2SK549****• 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	60			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =10 V _{GS} ; I _D =1mA	2.0		4.0	V
R _{DS(on)}	Drain-Source On-stage Resistance	V _{GS} =10V; I _D = 5A		0.1	0.15	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±12V; V _{DS} = 0			±10	uA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =50V; V _{GS} = 0			250	uA
V _{SD}	Diode Forward Voltage	I _F =10A; V _{GS} =0		1.2		V
t _r	Rise time	V _{GS} =10V; I _D =5A; R _L =6 Ω		40		ns
t _{on}	Turn-on time			55		ns
t _f	Fall time			45		ns
t _{off}	Turn-off time			100		ns