

isc N-Channel MOSFET Transistor

2SK1553

DESCRIPTION

- Drain Current $-I_D=5A@ T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}=650$ (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

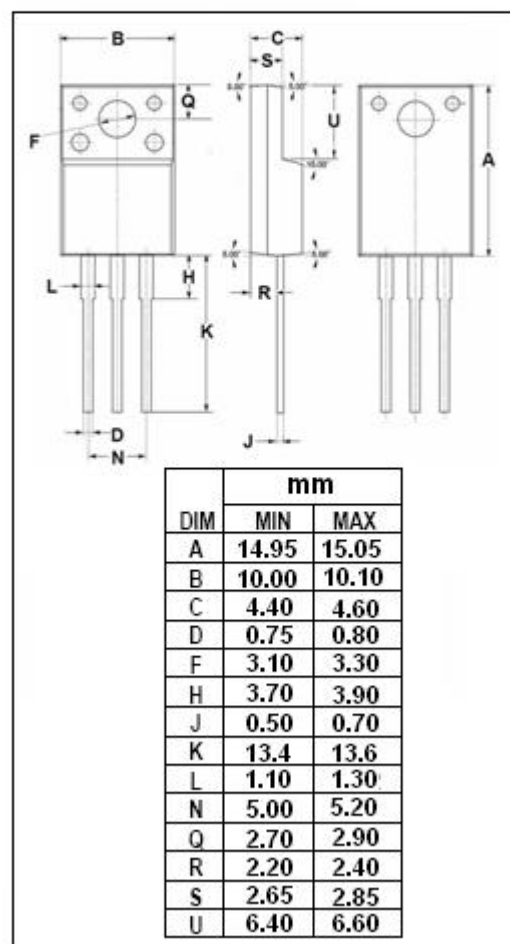
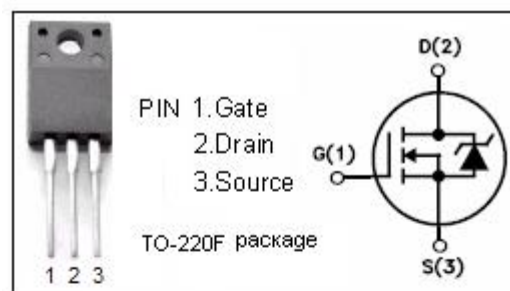
- Designed for high voltage, high speed power switching

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	650	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	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.125	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^{\circ}C/W$



isc N-Channel Mosfet Transistor**2SK1553****• 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 = 1mA	650			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =0; I _D =10mA	2.1	3.0	4.0	V
R _{DS(on)}	Drain-Source On-stage Resistance	V _{GS} =10V; I _D =2.5A		2.0	2.5	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±30V; V _{DS} = 0			± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =650V; V _{GS} = 0			500	uA
t _r	Rise time	V _{GS} =10V; I _D =5A; R _L =25 Ω		30	45	ns
t _{on}	Turn-on time			55	85	ns
t _f	Fall time			45	70	ns
t _{off}	Turn-off time			185	280	ns

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