

isc N-Channel MOSFET Transistor

2SK1527

DESCRIPTION

- Drain Current $-I_D=40A@ T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}=500$ (Min)

APPLICATIONS

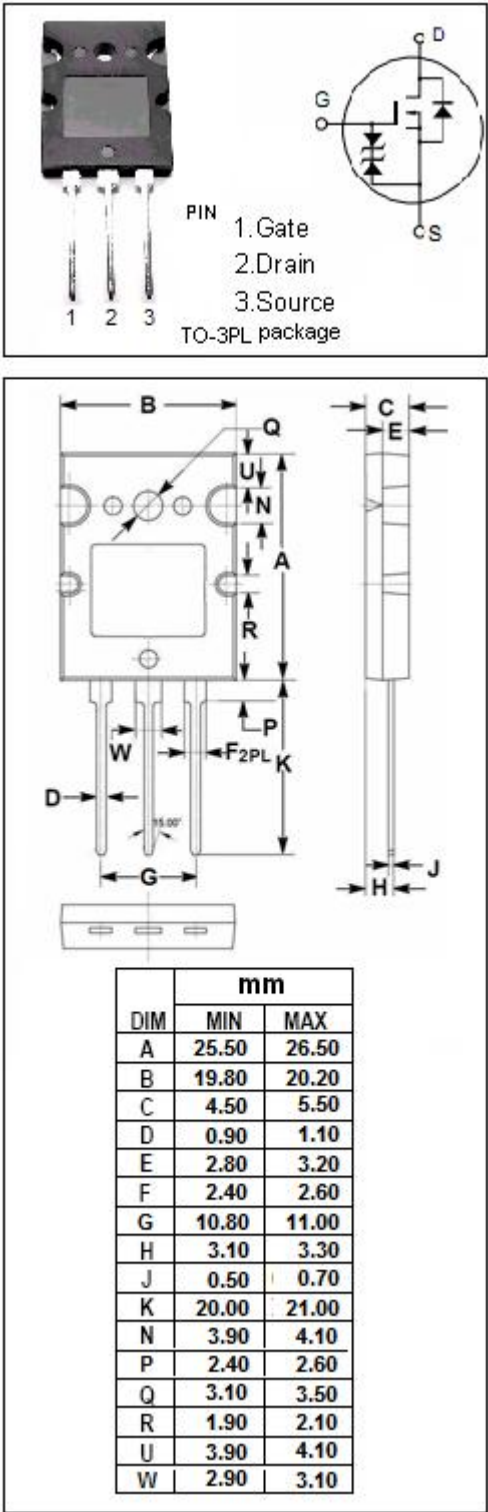
- Designed for high voltage, high speed power switching applications such as switching regulators, converters, solenoid and relay drivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	500	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C=25^{\circ}C$	40	A
P_{tot}	Total Dissipation@ $T_C=25^{\circ}C$	250	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	50	$^{\circ}C/W$



isc N-Channel Mosfet Transistor**2SK1527****• 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	500			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =10V; I _D =1mA	2.0		3.0	V
R _{DS(on)}	Drain-Source On-stage Resistance	V _{GS} =10V; I _D =20A		0.12	0.16	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±25V; V _{DS} = 0			±10	uA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =400V; V _{GS} = 0			250	uA
V _{SD}	Diode Forward Voltage	I _F =40A; V _{GS} =0			1.2	V
tr	Rise time	V _{GS} =10V; I _D =20A; R _L =1.5 Ω		175		ns
ton	Turn-on time			235		ns
tf	Fall time			160		ns
toff	Turn-off time			580		ns