

isc N-Channel MOSFET Transistor

2SK1544

DESCRIPTION

- Drain Current $-I_D=25A@ T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}=500$ (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

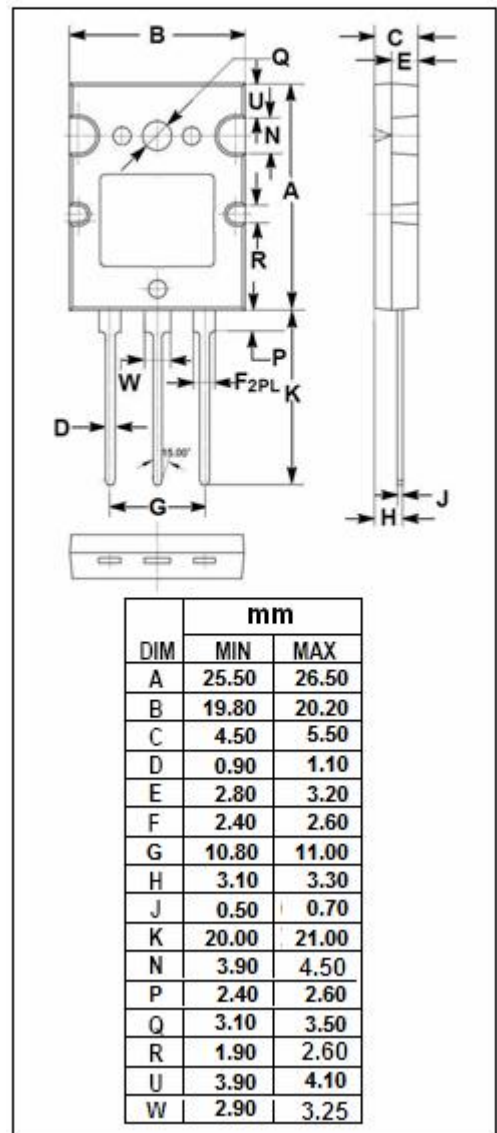
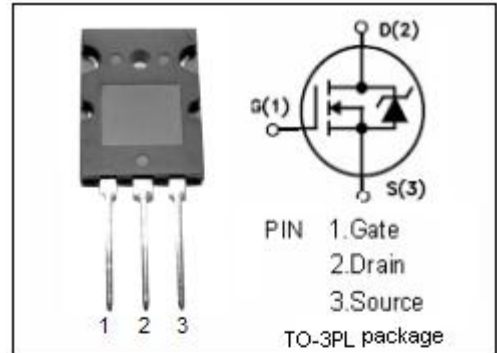
- Designed especially for high voltage,high speed applications, such as off-line switching power supplies , UPS,AC and DC motor controls,relay and solenoid drivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	500	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C=25^{\circ}C$	25	A
P_{tot}	Total Dissipation@ $T_C=25^{\circ}C$	200	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	0.625	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance,Junction to Ambient	35.7	$^{\circ}C/W$



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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	500			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 =13A		0.15	0.20	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±25V; V _{DS} = 0			± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =500V; V _{GS} = 0			300	uA
V _{SD}	Diode Forward Voltage	I _F =25A; V _{GS} =0			1.6	V
t _r	Rise time	V _{GS} =10V; I _D =13A; R _L =16 Ω		285		ns
t _{on}	Turn-on time			240		ns
t _f	Fall time			250		ns
t _{off}	Turn-off time			590		ns

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