

isc N-Channel MOSFET Transistor

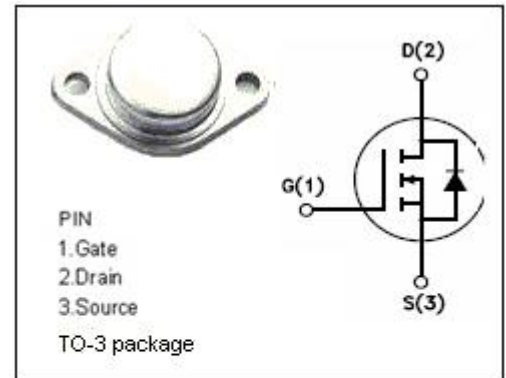
2SK1064

DESCRIPTION

- Drain Current $-I_D=15A@ T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}= 500V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

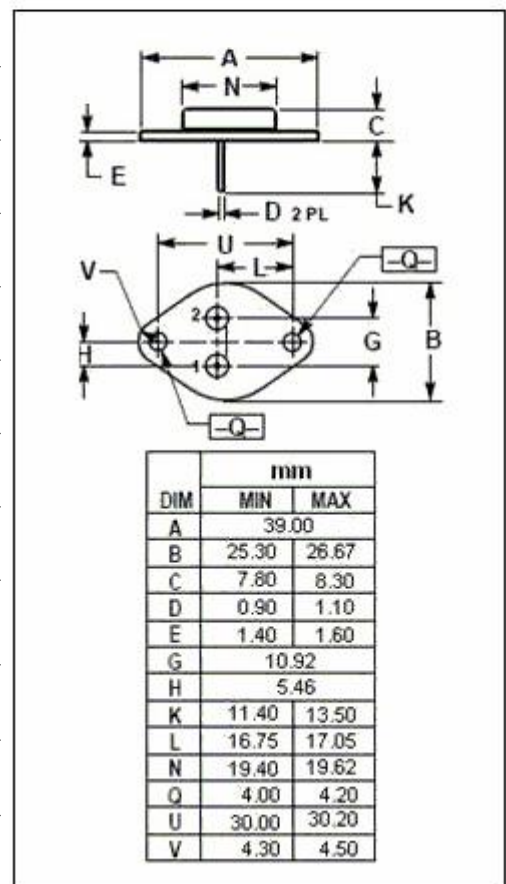
APPLICATIONS

- High current , high speed switching
- Switch mode power supplies
- DC-DC converters for telecom, industrial, and lighting equipment ideal for monitor's B+ function



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	± 20	V
I_D	Drain Current-continuous@ $T_C=25^{\circ}C$	15	A
P_{tot}	Total Dissipation@ $T_C=25^{\circ}C$	125	W
T_j	Max. Operating Junction Temperature	200	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~200	$^{\circ}C$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.56	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^{\circ}C/W$

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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} =10 V _{GS} ; I _D =1mA	2.0		4.0	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D =8A		0.3	0.4	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ± 16V; V _{DS} = 0			± 10	uA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 400V; V _{GS} = 0			250	uA
V _{SD)}	Forward On-Voltage	I _F = 15A; V _{GS} = 0		1.2		V
ton	Turn-on time	V _{GS} =10V; I _D =8A;		145		ns
toff	Turn-off time	RL=3.75 Ω		420		ns

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