

isc N-Channel MOSFET Transistor

2SK1451

DESCRIPTION

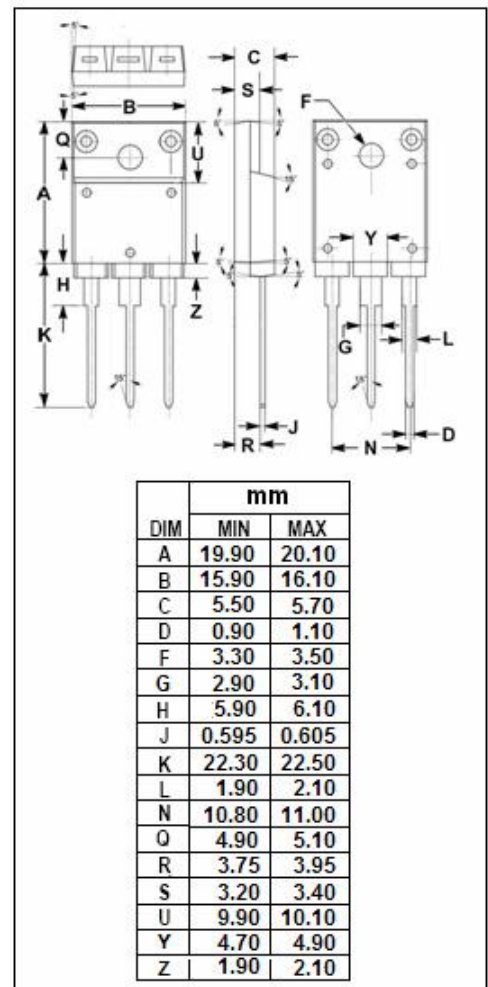
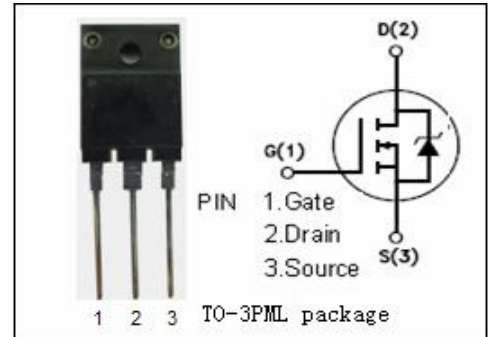
- Drain Current $-I_D=8A @ T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}=450$ (Min)

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	ARAMETER	VALUE	UNI T
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	450	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $TC=25^\circ C$	8	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	$^\circ C$



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• ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=10\text{mA}$	450			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=10\text{V}; I_D=1\text{mA}$	2.0		3.0	V
$R_{DS(on)}$	Drain-Source On-stage Resistance	$V_{GS}=10\text{V}; I_D=4\text{A}$		0.6	0.8	Ω
I_{GSS}	Gate Source Leakage Current	$V_{GS}=\pm 30\text{V}; V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=450\text{V}; V_{GS}=0$			1	mA
V_{SD}	Diode Forward Voltage	$I_F=8\text{A}; V_{GS}=0$			1.8	V
t_r	Rise time	$V_{GS}=10\text{V}; I_D=4\text{A}; R_L=50\Omega$		40		ns
t_{on}	Turn-on time			60		ns
t_f	Fall time			60		ns
t_{off}	Turn-off time			220		ns