

isc N-Channel MOSFET Transistor

2SK513

DESCRIPTION

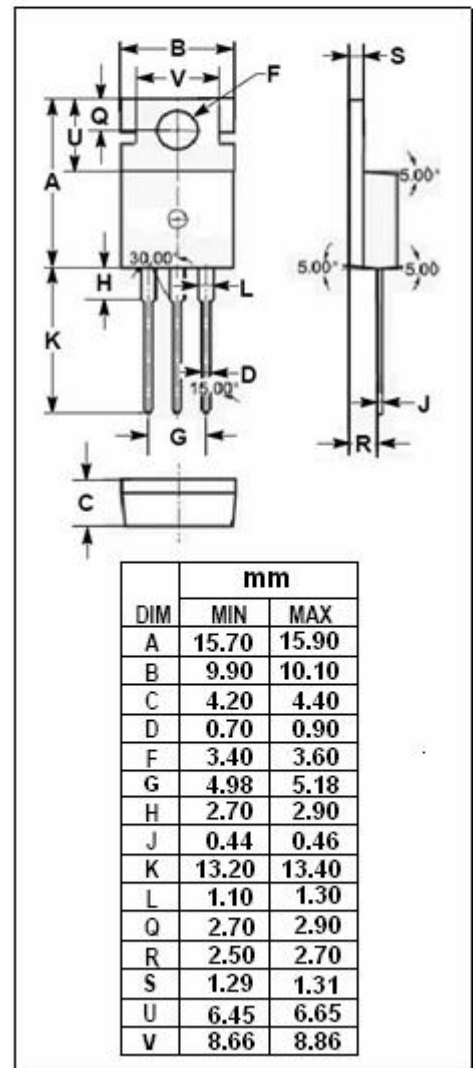
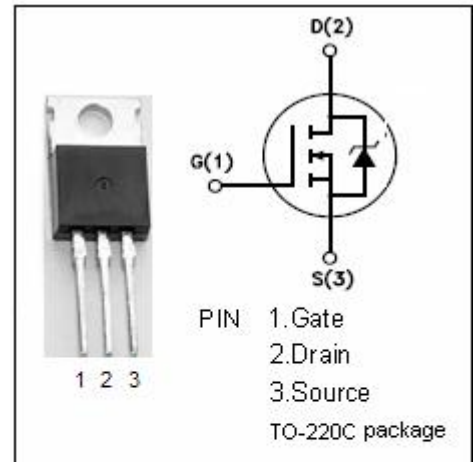
- Drain Current  $-I_D=3A @ T_C=25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS}= 800V(\text{Min})$
- Fast Switching Speed

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	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	800	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-continuous@ $TC=25^\circ C$	3	A
$P_{tot}$	Total Dissipation@ $TC=25^\circ C$	60	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<sub>C</sub>=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0; I <sub>D</sub> = 10mA	800			V
V <sub>GS(TH)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> = 1mA	2		4	V
R <sub>DS(ON)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = 15V; I <sub>D</sub> = 2A		5.0	6.0	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0			±1	uA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =640V; V <sub>GS</sub> = 0			1	mA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>F</sub> = 2A; V <sub>GS</sub> = 0		0.9		V
t <sub>r</sub>	Rise time	V <sub>GS</sub> =15V; I <sub>D</sub> =2A; R <sub>L</sub> =15 Ω		35		ns
t <sub>on</sub>	Turn-on time			50		ns
t <sub>f</sub>	Fall time			35		ns
t <sub>off</sub>	Turn-off time			120		ns