

isc N-Channel MOSFET Transistor

2SK513

DESCRIPTION

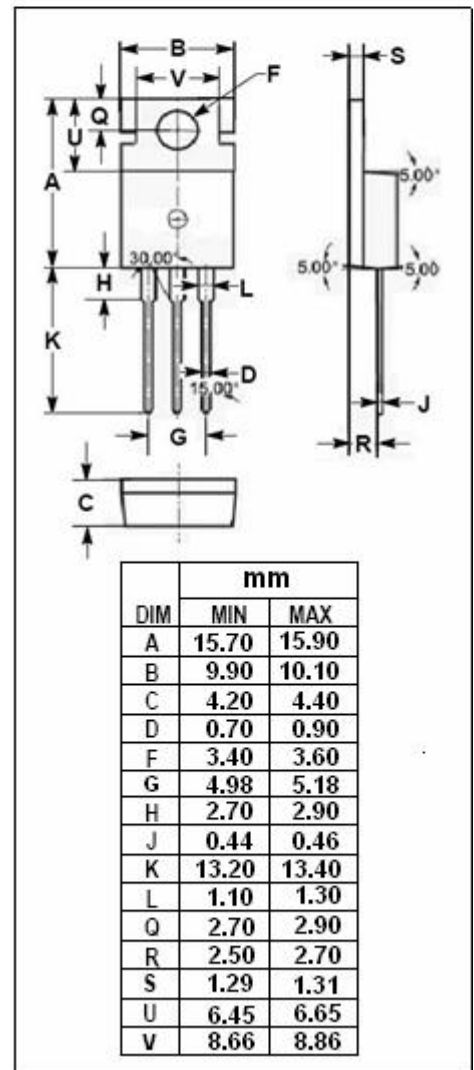
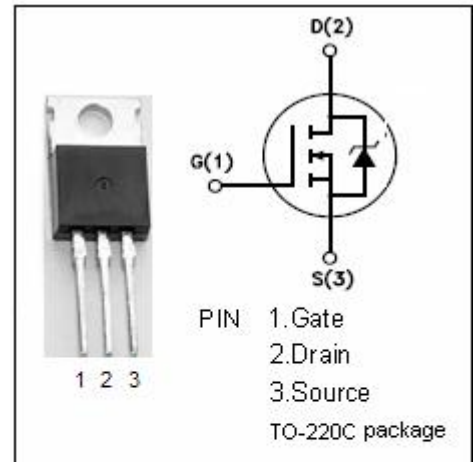
- Drain Current  $-I_D=3A @ T_C=25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS}= 800V(\text{Min})$
- Fast Switching Speed

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$ ; $I_D=10\text{mA}$	800			V
$V_{GS(TH)}$	Gate Threshold Voltage	$V_{DS}=10\text{V}$ ; $I_D=1\text{mA}$	2		4	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	$V_{GS}=15\text{V}$ ; $I_D=2\text{A}$		5.0	6.0	$\Omega$
$I_{GSS}$	Gate Source Leakage Current	$V_{GS}=\pm 20\text{V}$ ; $V_{DS}=0$			$\pm 1$	$\mu\text{A}$
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=640\text{V}$ ; $V_{GS}=0$			1	mA
$V_{SD}$	Diode Forward Voltage	$I_F=2\text{A}$ ; $V_{GS}=0$		0.9		V
$t_r$	Rise time	$V_{GS}=15\text{V}$ ; $I_D=2\text{A}$ ; $R_L=15\Omega$		35		ns
$t_{on}$	Turn-on time			50		ns
$t_f$	Fall time			35		ns
$t_{off}$	Turn-off time			120		ns