

isc N-Channel MOSFET Transistor

2SK894

DESCRIPTION

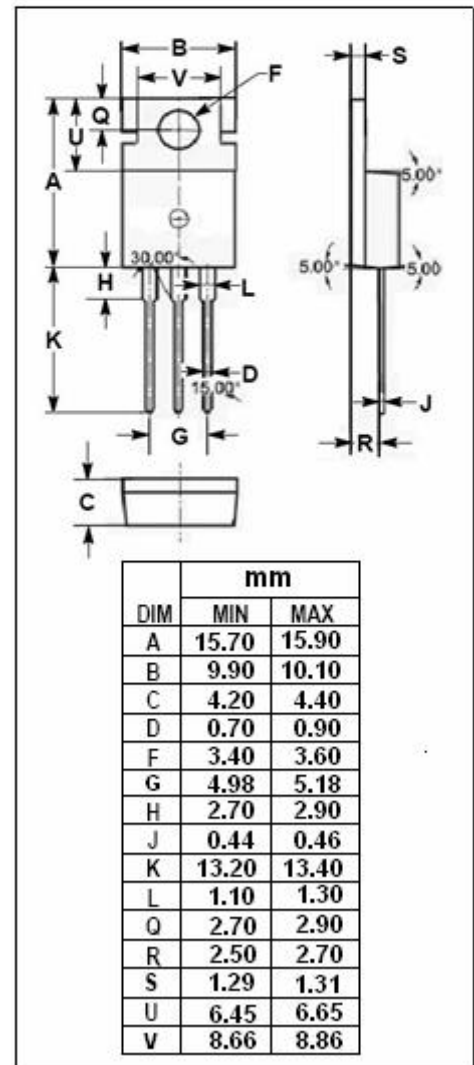
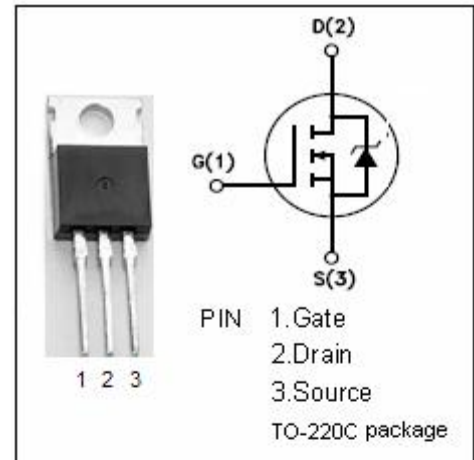
- Drain Current $-I_D=8A @ T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}=500V(\text{Min})$
- Fast Switching Speed

APPLICATIONS

- High voltage.
- high speed power Switching.

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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	500	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $TC=25^\circ C$	8	A
P_{tot}	Total Dissipation@ $TC=25^\circ C$	125	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	$V_{GS}=0$; $I_D=10\text{mA}$	500			V
$V_{GS(TH)}$	Gate Threshold Voltage	$V_{DS}=10\text{V}$; $I_D=1\text{mA}$	1.5		3.5	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	$V_{GS}=10\text{V}$; $I_D=4\text{A}$		0.65	0.85	Ω
I_{GSS}	Gate Source Leakage Current	$V_{GS}=\pm 20\text{V}$; $V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=500\text{V}$; $V_{GS}=0$			300	μA
t_r	Rise time	$V_{GS}=10\text{V}$; $I_D=4\text{A}$; $R_L=50\ \Omega$		7	15	ns
t_{on}	Turn-on time			25	50	ns
t_f	Fall time			15	30	ns
t_{off}	Turn-off time			60	120	ns
V_{SD}	Diode Forward Voltage	$I_F=8\text{A}$; $V_{GS}=0$			2.0	V