

isc N-Channel MOSFET Transistor

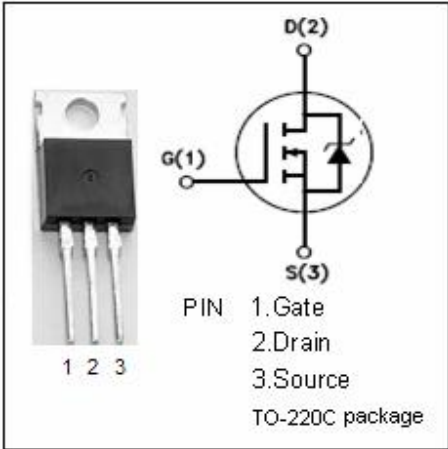
2SK2407

DESCRIPTION

- Drain Current $I_D=10A@T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}=450V(Min)$
- Fast Switching Speed

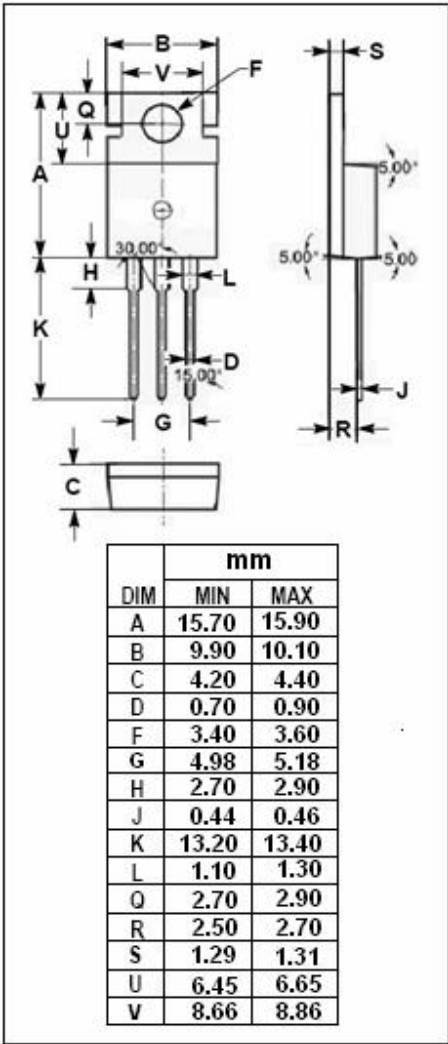
APPLICATIONS

- Switching regulators



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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	450	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C=25^{\circ}C$	10	A
$I_{D(puls)}$	Pulse Drain Current	40	A
P_{tot}	Total Dissipation@ $T_C=25^{\circ}C$	70	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	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=1\text{mA}$	450			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=10\text{V}$; $I_D=1\text{mA}$	2.0		3.0	V
V_{SD}	Forward On-Voltage	$I_S=10\text{A}$; $V_{GS}=0$			1.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$; $I_D=6\text{A}$		0.55	0.75	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}$; $V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=450\text{V}$; $V_{GS}=0$			1.0	mA
C_{iss}	Input Capacitance	$V_{DS}=20\text{V}$; $V_{GS}=0\text{V}$; $f_T=1\text{MHz}$		1500		pF
C_{rss}	Reverse Transfer Capacitance			75		
C_{oss}	Output Capacitance			220		
t_r	Rise Time	$V_{GS}=10\text{V}$; $I_D=5\text{A}$; $V_{DD}=200\text{V}$; $R_L=33.3\ \Omega$		60		ns
$t_{d(on)}$	Turn-on Delay Time			25		
t_f	Fall Time			60		
$t_{d(off)}$	Turn-off Delay Time			230		