

isc N-Channel MOSFET Transistor

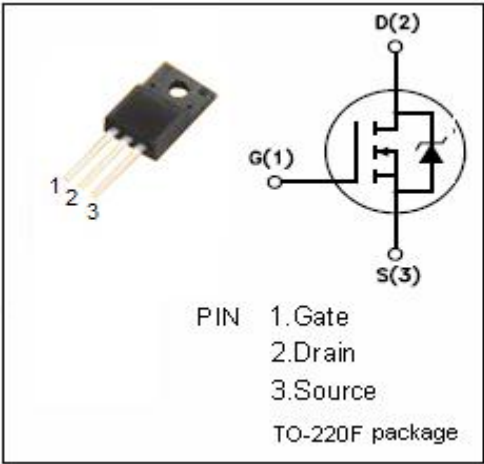
2SK1984-01M

DESCRIPTION

- Drain Current $-I_D = 3A @ T_C = 25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS} = 900V (Min)$
- Fast Switching Speed

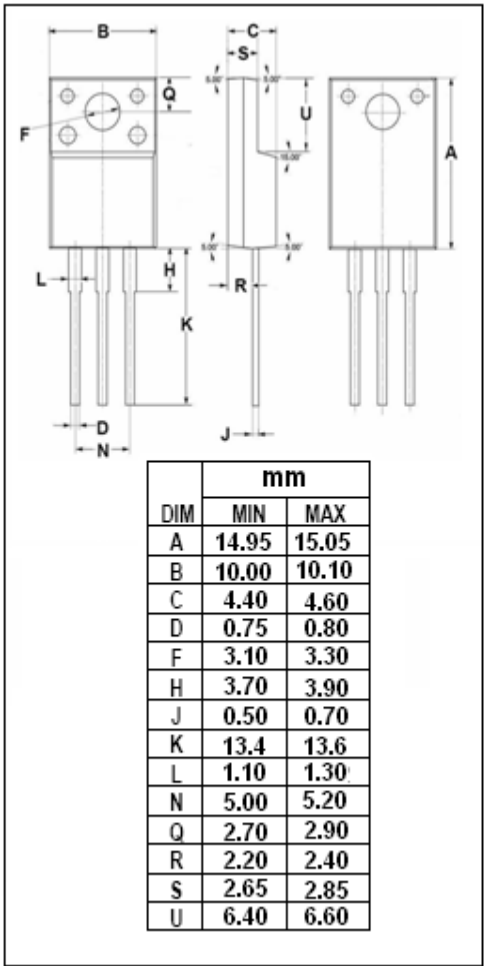
APPLICATIONS

- Switching regulators
- UPS
- General purpose power amplifier



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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	900	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C = 25^{\circ}C$	3	A
P_{tot}	Total Dissipation@ $T_C = 25^{\circ}C$	40	W
T_j	Max. Operating Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	3.125	$^{\circ}C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^{\circ}C/W$

isc N-Channel Mosfet Transistor**2SK1984-01M****• ELECTRICAL CHARACTERISTICS (TC=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS} = 0; I_D = 1mA$	900			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}; I_D = 1mA$	2.5		3.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS} = 10V; I_D = 1.5A$			4	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS} = \pm 30V; V_{DS} = 0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS} = 900V; V_{GS} = 0$			500	μA
C_{iss}	Input Capacitance	$V_{DS} = 25V; V_{GS} = 0V; f_T = 1MHz$		1000	1500	pF
C_{rss}	Reverse Transfer capacitance			25	40	
C_{oss}	Output Capacitance			90	130	
t_r	Rise Time	$V_{GS} = 10V; I_D = 3A;$ $V_{DD} = 600V;$ $R_L = 10\Omega$		10	15	ns
$t_{d(on)}$	Turn-on Delay Time			20	30	
t_f	Fall Time			15	25	
$t_{d(off)}$	Turn-off Delay Time				90	