

**isc N-Channel MOSFET Transistor**

**2SK525**

**DESCRIPTION**

- Drain Current  $-I_D=10A @ T_C=25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS}=150V(\text{Min})$
- Fast Switching Speed

**APPLICATIONS**

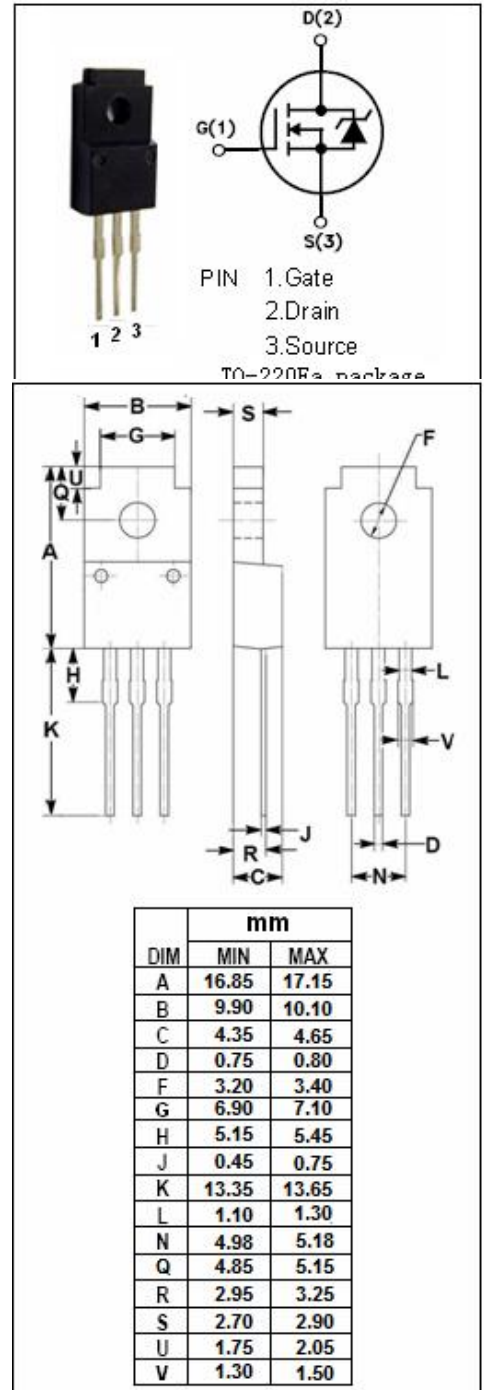
- Designed especially for low voltage,high speed applications, such as off-line switching power supplies , UPS,AC and DC motor controls,relay and solenoid drivers.

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

SYMBOL	ARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	150	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-continuous@ $T_C=25^\circ C$	10	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	1.67	$^\circ C/W$
$R_{th\ j-a}$	Thermal Resistance,Junction to Ambient	62.5	$^\circ C/W$



**isc N-Channel Mosfet Transistor****2SK525****• 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	150			V
V <sub>GS(TH)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> = 1mA	1.5		3.5	V
R <sub>DS(ON)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =5A		0.2	0.28	Ω
V <sub>DS(ON)</sub>	Drain-Source Saturation Voltage	I <sub>F</sub> = 10A; V <sub>GS</sub> =10V		2.2	3.0	V
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0			±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =150V; V <sub>GS</sub> = 0			1	mA
t <sub>r</sub>	Rise time	V <sub>GS</sub> =10V; I <sub>D</sub> =5A; R <sub>L</sub> =50 Ω		75	140	ns
t <sub>on</sub>	Turn-on time			85	170	ns
t <sub>f</sub>	Fall time			55	110	ns
t <sub>off</sub>	Turn-off time			160	320	ns