

**isc N-Channel MOSFET Transistor**

**2SK1401A**

**DESCRIPTION**

- Drain Current  $-I_D = 15A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 350V(\text{Min})$
- Fast Switching Speed

**APPLICATIONS**

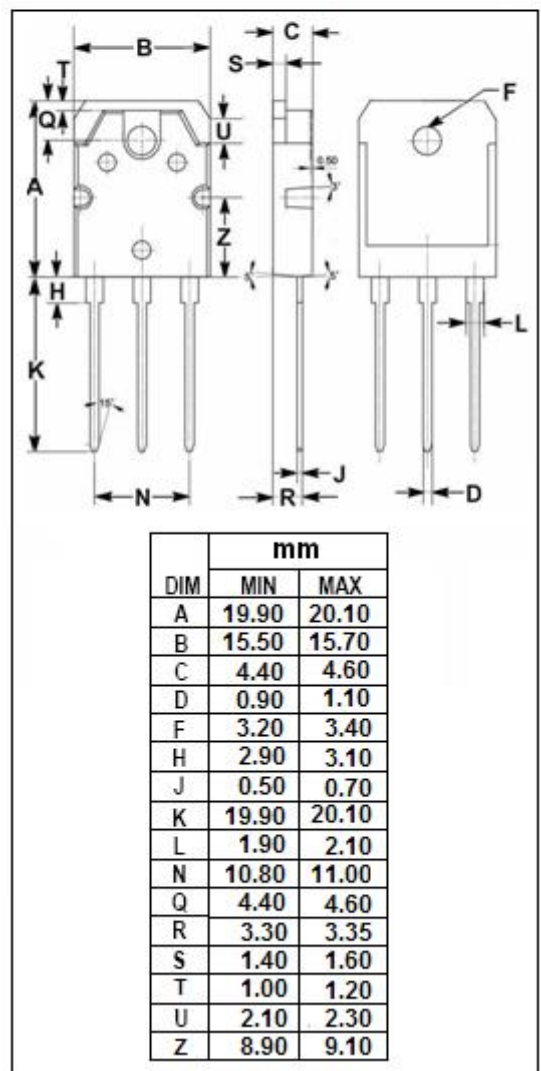
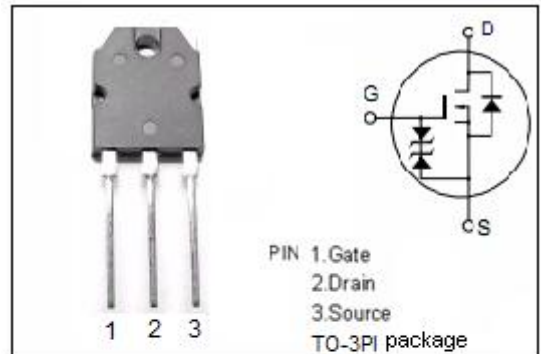
- high speed power switching

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS} = 0$ )	350	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-continuous @ $T_C = 25^\circ C$	15	A
$P_{tot}$	Total Dissipation @ $T_C = 25^\circ C$	100	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	0.83	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	35	$^\circ C/W$



## isc N-Channel Mosfet Transistor

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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	$V_{GS}=0; I_D=10\text{mA}$	350			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=10\text{V}; I_D=1\text{mA}$	2.0		3.0	V
$R_{DS(on)}$	Drain-Source On-stage Resistance	$V_{GS}=10\text{V}; I_D=8\text{A}$		0.30	0.40	$\Omega$
$I_{GSS}$	Gate Source Leakage Current	$V_{GS}=\pm 25\text{V}; V_{DS}=0$			$\pm 10$	$\mu\text{A}$
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=280\text{V}; V_{GS}=0$			250	$\mu\text{A}$
$V_{SD}$	Diode Forward Voltage	$I_F=15\text{A}; V_{GS}=0$		1.05		V
$t_r$	Rise time	$V_{GS}=10\text{V}; I_D=8\text{A}; R_L=3.75\Omega$		80		ns
$t_{on}$	Turn-on time			95		ns
$t_f$	Fall time			55		ns
$t_{off}$	Turn-off time			155		ns