

**isc N-Channel MOSFET Transistor**

**2SK1403A**

**DESCRIPTION**

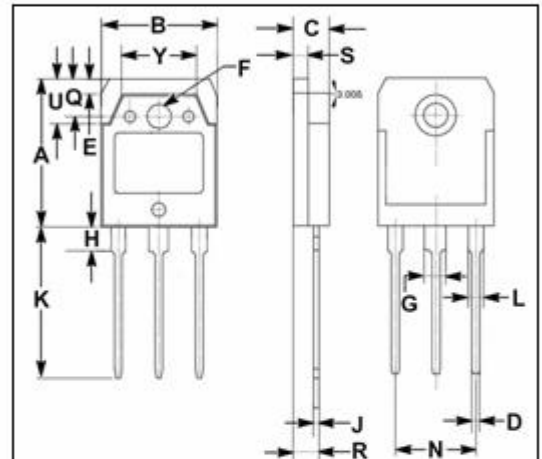
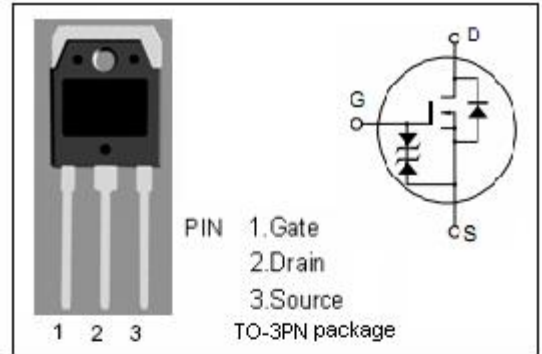
- Drain Current  $I_D = 8A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 650V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Switching regulator and DC-DC converter

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS} = 0$ )	650	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-continuous@ $T_C = 25^\circ C$	8	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	$^\circ C$



DIM	mm	
	MIN	MAX
A	19.60	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	20.00	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.10
Y	9.90	10.10

## isc N-Channel MOSFET Transistor

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• 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	650			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =10 V; I <sub>D</sub> =1mA	2.0		3.0	V
R <sub>DS(on)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =4A		1.0	1.4	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±25V; V <sub>DS</sub> = 0			±10	μA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =550V; V <sub>GS</sub> = 0			250	μA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>S</sub> =8A; V <sub>GS</sub> =0		0.95		V
t <sub>r</sub>	Rise Time	V <sub>GS</sub> =10V; I <sub>D</sub> =4A; R <sub>L</sub> =7.5 Ω		50		ns
t <sub>d(on)</sub>	Turn-on Delay Time			15		
t <sub>f</sub>	Fall Time			45		
t <sub>d(off)</sub>	Turn-off Delay Time			105		

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