

# isc N-Channel MOSFET Transistor

2SK402

#### **DESCRIPTION**

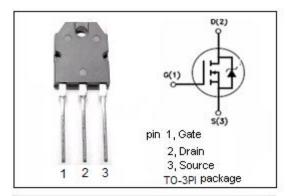
- Drain Current –I<sub>D</sub>=8A@ T<sub>C</sub>=25 °C
- · Drain Source Voltage-
  - : V<sub>DSS</sub>= 400V(Min)
- · Fast Switching Speed
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

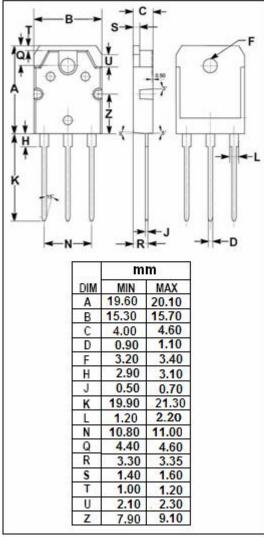
#### **APPLICATIONS**

- · High speed switching.
- · High Cutoff frequency.
- No secondary breakdown.
- Suitable for switching regulator, DC-DC converter, RF amplifiers, and ultrasonic power oscillators.

## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	ARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage (V <sub>GS</sub> =0)	400	V
$V_{GS}$	Gate-Source Voltage	±20	V
l <sub>D</sub>	Drain Current-continuous@ TC=25℃	8	Α
P <sub>tot</sub>	Total Dissipation@TC=25℃	100	W
T <sub>j</sub>	Max. Operating Junction Temperature	150	$^{\circ}$
T <sub>stg</sub>	Storage Temperature Range	-55~150	$^{\circ}$







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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	400			V
V <sub>GS(TH)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> = 1mA	2.0		5.0	V
R <sub>DS(ON)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = 15V; I <sub>D</sub> = 4A		1.10	1.75	Ω
V <sub>SD</sub>	Diode Forward Voltage	I <sub>F</sub> = 4A; V <sub>GS</sub> = 0		0.85		V
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0			±1	uA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =320V; V <sub>GS</sub> = 0			1	mA



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