

# **INCHANGE SEMICONDUCTOR**

# isc N-Channel MOSFET Transistor

# 70N06

## DESCRIPTION

- Drain Current I<sub>D</sub>=70A@ T<sub>C</sub>=25℃
- · Drain Source Voltage-
- : V<sub>DSS</sub>=60V(Min)
- Static Drain-Source On-Resistance
- : R<sub>DS(on)</sub> = 14m Ω (Max)
- · Fast Switching Speed
- · Minimum Lot-to-Lot variations for robust device performance and reliable operation

## **APPLICATIONS**

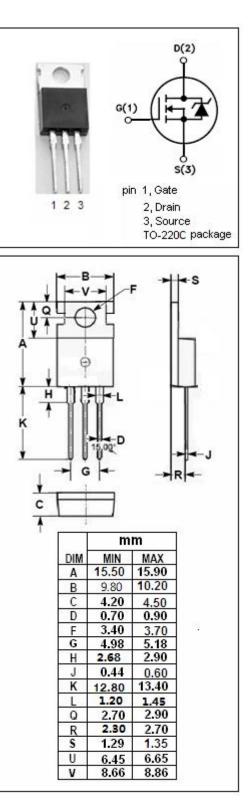
· Designed for use in applications such as swithing Regulators, switching convertes, motor drivers and Relay drivers.

# ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	ARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	60	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
ID	Drain Current-continuous@ TC=25°C	70	А
PD	Power Dissipation @TC=25°C	150	W
Tj	Max. Operating Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
Rth j-c	Thermal Resistance, Junction to Case	0.83	°C/W





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ELECTRICAL CHARACTERISTICS(1C-25C)							
PARAMETER	CONDITIONS	MIN	MAX	UNIT			
Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA	60		V			
Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 0.25mA	2	4	V			
Drain-Source On-stage Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 70A		0.014	Ω			
Gate Source Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> = 0		±100	nA			
Zero Gate Voltage Drain Current	V <sub>DS</sub> = 60V; V <sub>GS</sub> = 0		1	uA			
Diode Forward Voltage	I <sub>F</sub> = 70A; V <sub>GS</sub> = 0		1.5	V			
	PARAMETER Drain-Source Breakdown Voltage Gate Threshold Voltage Drain-Source On-stage Resistance Gate Source Leakage Current Zero Gate Voltage Drain Current	PARAMETERCONDITIONSDrain-Source Breakdown Voltage $V_{GS}$ = 0; $I_D$ = 0.25mAGate Threshold Voltage $V_{DS}$ = $V_{GS}$ ; $I_D$ = 0.25mADrain-Source On-stage Resistance $V_{GS}$ = 10V; $I_D$ = 70AGate Source Leakage Current $V_{GS}$ = $\pm 20V; V_{DS}$ = 0Zero Gate Voltage Drain Current $V_{DS}$ = 60V; $V_{GS}$ = 0	PARAMETERCONDITIONSMINDrain-Source Breakdown Voltage $V_{GS}$ = 0; $I_D$ = 0.25mA60Gate Threshold Voltage $V_{DS}$ = $V_{GS}$ ; $I_D$ = 0.25mA2Drain-Source On-stage Resistance $V_{GS}$ = 10V; $I_D$ = 70A2Gate Source Leakage Current $V_{GS}$ = $\pm 20V; V_{DS}$ = 02Zero Gate Voltage Drain Current $V_{DS}$ = 60V; $V_{GS}$ = 04	PARAMETERCONDITIONSMINMAXDrain-Source Breakdown Voltage $V_{GS}$ = 0; $I_D$ = 0.25mA60Gate Threshold Voltage $V_{DS}$ = $V_{GS}$ ; $I_D$ = 0.25mA24Drain-Source On-stage Resistance $V_{GS}$ = 10V; $I_D$ = 70A0.014Gate Source Leakage Current $V_{GS}$ = $\pm 20V; V_{DS}$ = 0 $\pm 100$ Zero Gate Voltage Drain Current $V_{DS}$ = 60V; $V_{GS}$ = 01			

## • ELECTRICAL CHARACTERISTICS (Tc=25°C)

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