

# isc N-Channel MOSFET Transistor

## 70N06

### DESCRIPTION

- Drain Current  $I_D=70A@ T_C=25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS}=60V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 14m\Omega (\text{Max})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

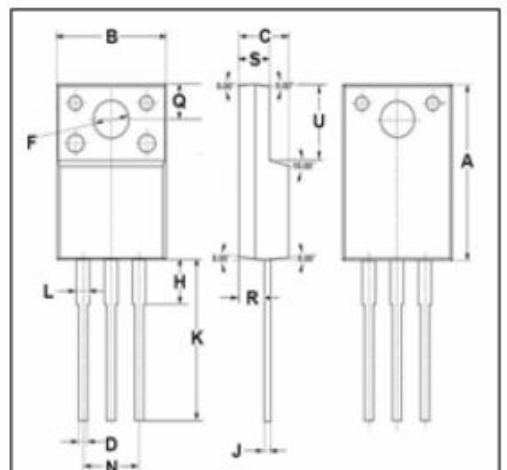
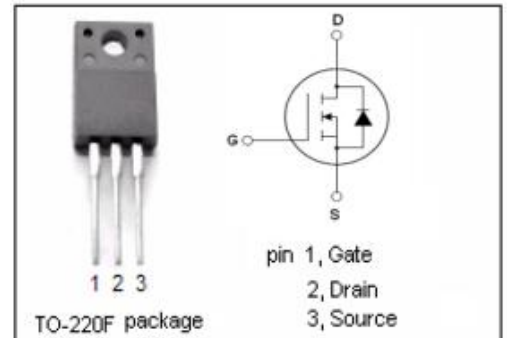
- Designed for use in applications such as switching Regulators, switching convertes, motor drivers and Relay drivers.

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

SYMBOL	ARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	60	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-continuous@ $TC=25^\circ C$	70	A
$P_D$	Power Dissipation @ $TC=25^\circ C$	40	W
$T_j$	Max. Operating Junction Temperature	-55~150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	3.125	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

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• ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA	60		V
V <sub>GS(TH)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 0.25mA	2	4	V
R <sub>DS(ON)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 70A		0.014	Ω
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> = 60V; V <sub>GS</sub> = 0		1	uA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>F</sub> = 70A; V <sub>GS</sub> = 0		1.5	V

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