

isc N-Channel Mosfet Transistor

4N70

• FEATURES

- Low $R_{DS(on)} = 2.5 \Omega$ (MAX)
- Improved Gate Charge
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

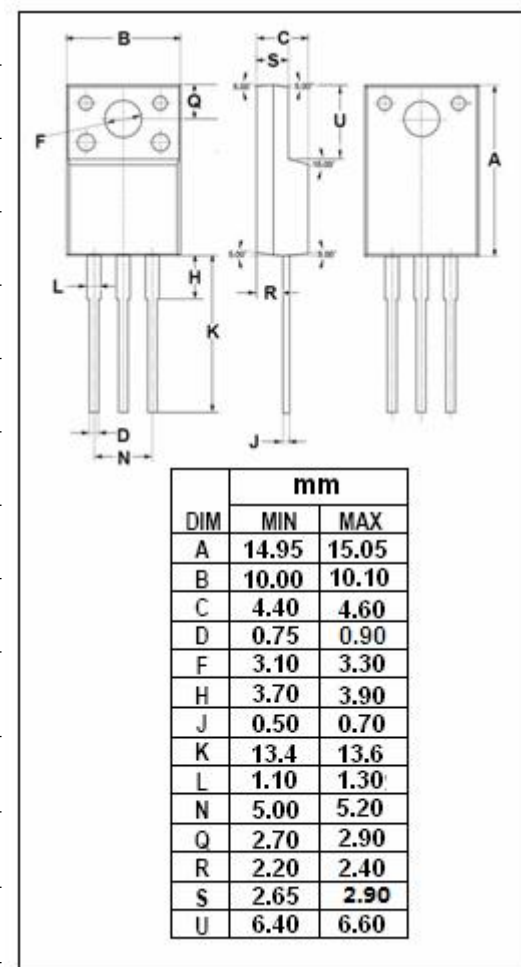
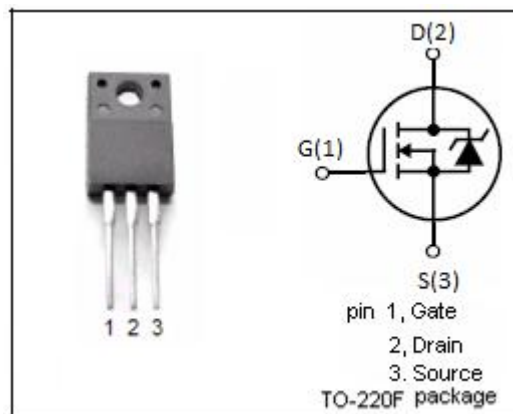
- Switching mode power supplies
- DC-DC & DC-AC converter

• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	700	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $TC=25^\circ\text{C}$	4	A
I_{DM}	Drain Current-Single Plused	16	A
P_{tot}	Total Dissipation@ $TC=25^\circ\text{C}$	36	W
T_j	Max. Operating Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance,Junction to Case	1	$^\circ\text{C/W}$
$R_{th j-a}$	Thermal Resistance,Junction to Ambient	40	$^\circ\text{C/W}$



isc N-Channel Mosfet Transistor**4N70****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =0.25mA	700			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =1mA	2.0		4.5	V
V _{SD}	Diode Forward On-voltage	I _S = 4A ;V _{GS} = 0			1.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 2A			2.5	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V;V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =700V; V _{GS} = 0			250	μA
G _{fs}	Forward Transconductance	V _{DS} = 50V; I _D =2A	2.5			S
t _{d(on)}	Turn-on Delay Time	I _D =5A; V _{GS} =10V;			60	ns
t _r	Rise Time				150	
t _{d(off)}	Turn-off Delay Time				300	
t _f	Fall Time				130	

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