

isc N-Channel MOSFET Transistor

6N70A

• FEATURES

- Drain Current $I_D = 6A @ T_C = 25^\circ C$
- Drain Source Voltage : $V_{DSS} = 700V(\text{Min})$
- Avalanche Energy Specified
- Fast Switching
- Simple Drive Requirements
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

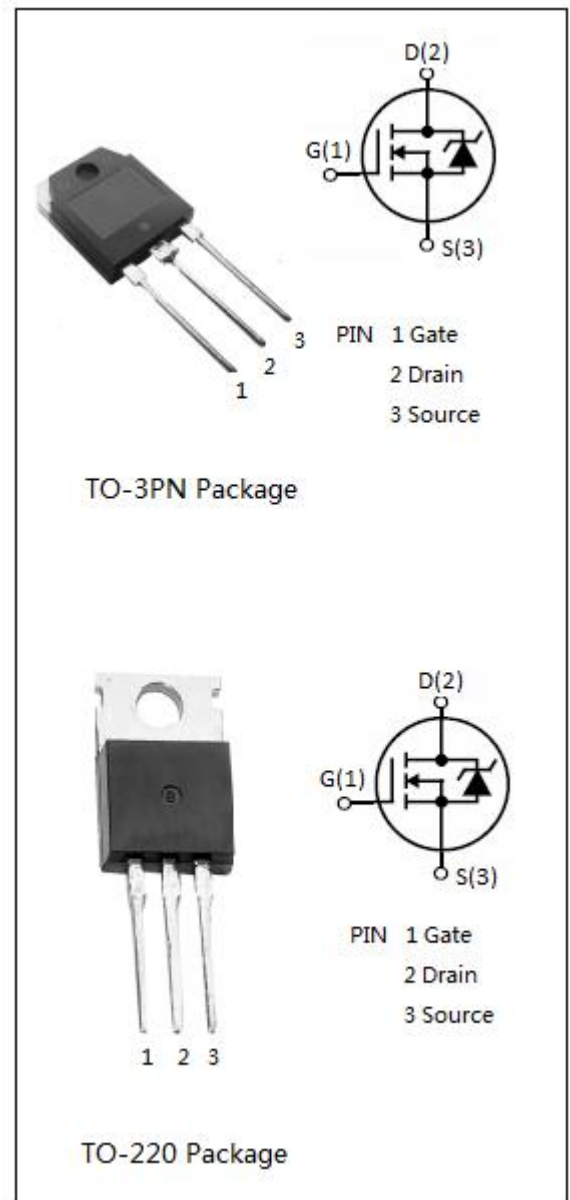
- Switch mode power supply.

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

SYMBOL	PARAMETER		VALUE	UNIT
V_{DSS}	Drain-Source Voltage		700	V
V_{GS}	Gate-Source Voltage-Continuous		± 30	V
I_D	Drain Current-Continuous		6	A
I_{DM}	Drain Current-Single Plused		24	A
P_D	Total Dissipation @ $T_c = 25^\circ C$	TO-220	130	W
		TO-3PN	140	
T_j	Max. Operating Junction Temperature		150	$^\circ C$
T_{stg}	Storage Temperature		-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	TO-220	0.96	$^\circ C/W$
		TO-3PN	0.89	
R_{thj-a}	Thermal Resistance, Junction to Ambient	TO-220	62.5	$^\circ C/W$
		TO-3PN	40	



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• ELECTRICAL CHARACTERISTICS

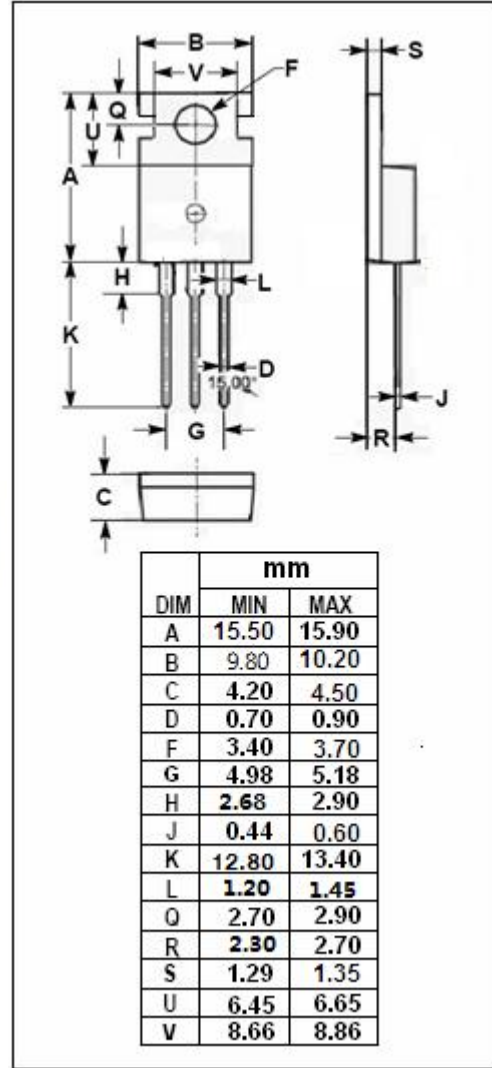
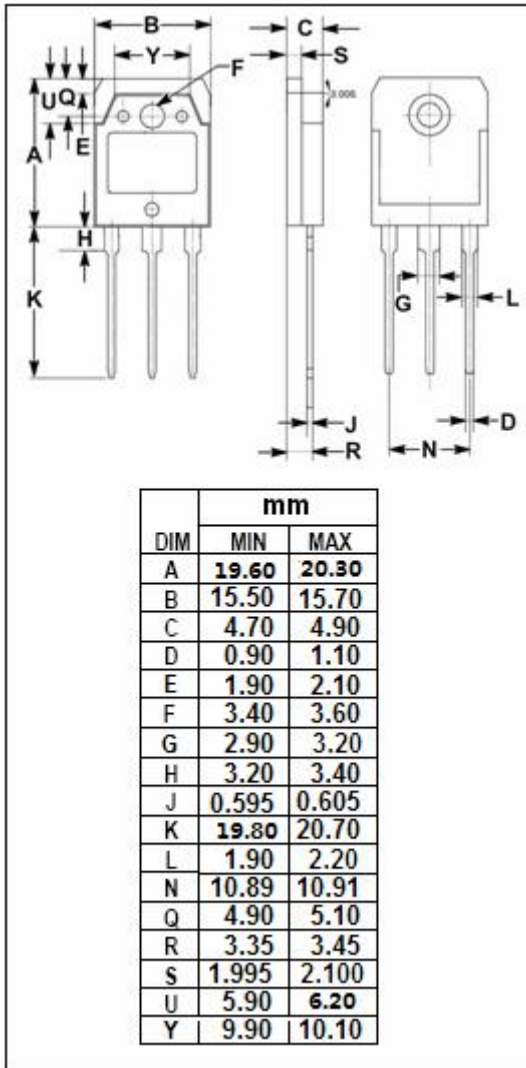
T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =250μA	700			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250μA	2.0		4.0	V
V _{SD}	Diode Forward On-voltage	I _S = 6A; V _{GS} = 0			1.4	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 3.0A			1.8	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =700V; V _{GS} = 0			25	μA

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Outline Drawing



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