

isc N-Channel MOSFET Transistor**IPA037N08N3, IIPA037N08N3****• FEATURES**

- Low drain-source on-resistance:
 $R_{DS(on)} \leq 3.7\text{m}\Omega$ (max)
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

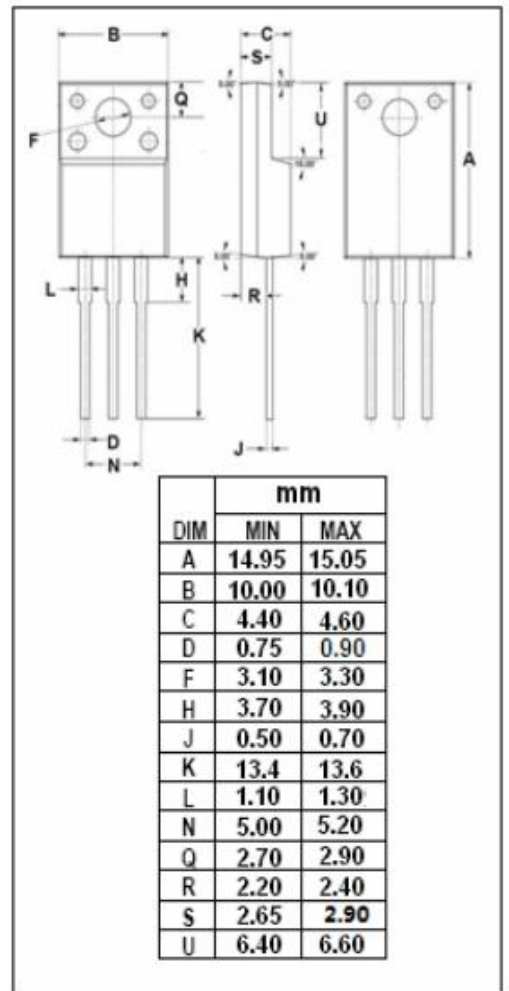
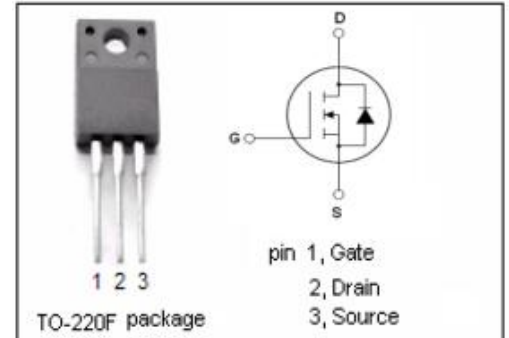
- Device for use in a wide variety of applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	80	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	75	A
I_{DM}	Drain Current-Single Pulsed	300	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	41	W
T_j	Max. Operating Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	3.7	$^\circ\text{C/W}$



isc N-Channel MOSFET Transistor**IPA037N08N3,IIPA037N08N3****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D =1mA	80			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =0.155mA	2.0		3.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =75A			3.7	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = 20V; V _{DS} = 0V			100	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} =80V; V _{GS} = 0V			1	μA
V _{SD}	Diode forward voltage	I _{DR} =75A, V _{GS} = 0 V			1.2	V

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