

isc N-Channel MOSFET Transistor
IPA045N10N3, IIPA045N10N3
• FEATURES

- Low drain-source on-resistance:
 $R_{DS(on)} \leq 4.5m\Omega$ (max)
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

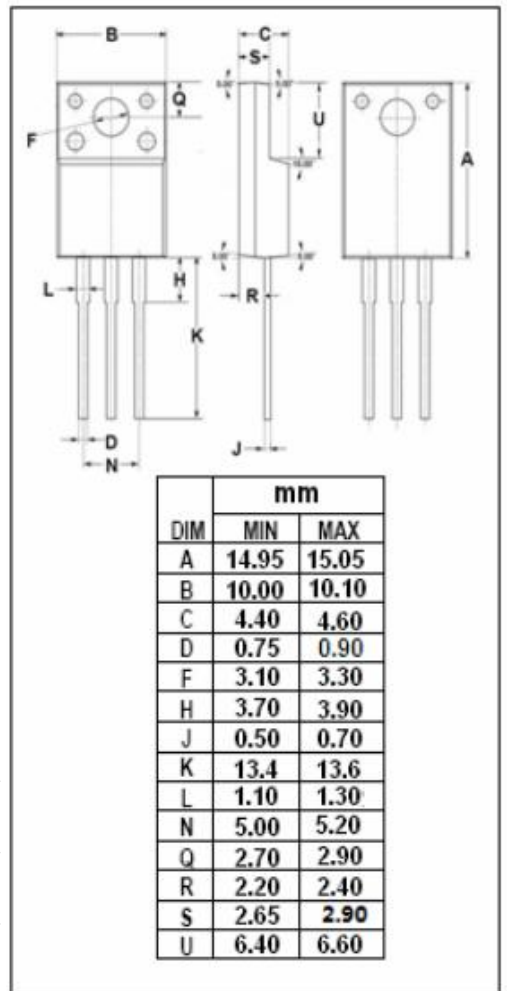
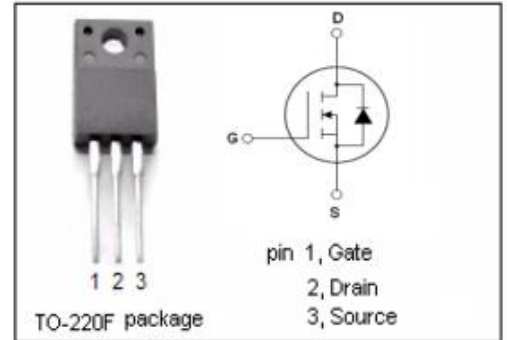
- Device for use in a wide variety of applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	64	A
I_{DM}	Drain Current-Single Pulsed	256	A
P_D	Total Dissipation @ $T_c=25^\circ C$	39	W
T_j	Max. Operating Junction Temperature	175	$^\circ C$
T_{stg}	Storage Temperature	-55~175	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	3.8	$^\circ C/W$



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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	100			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =0.15mA	2.0		3.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =64A			4.5	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = 20V; V _{DS} = 0V			100	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} =100V; V _{GS} = 0V			1	μA
V _{SD}	Diode forward voltage	I _{DR} =64A, V _{GS} = 0 V			1.0	V

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