

isc N-Channel MOSFET Transistor

IPP055N03L, IIPP055N03L

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 5.5\text{m}\Omega$
- Enhancement mode:
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

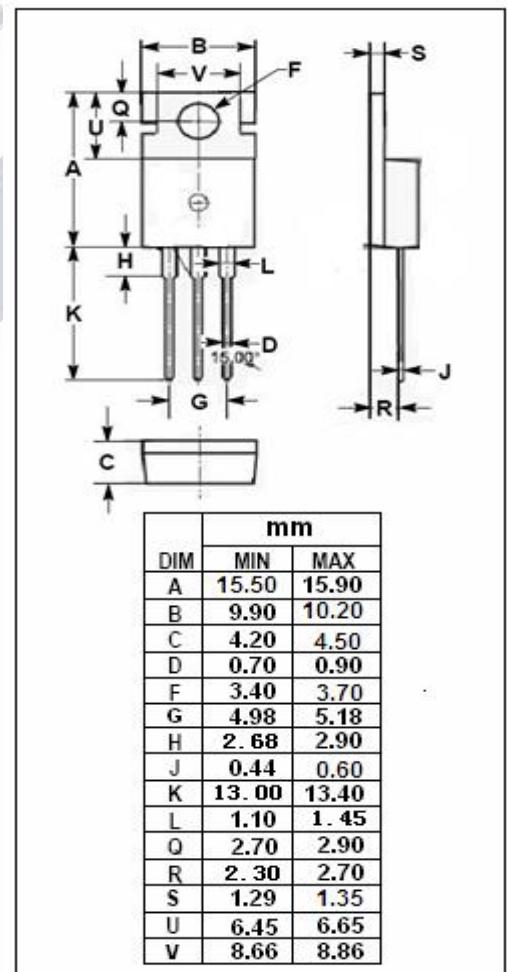
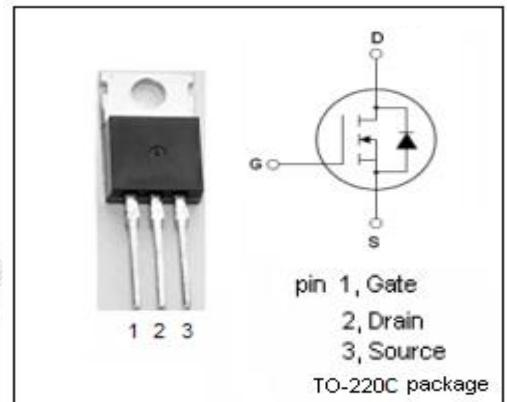
- reliable device for use in a wide variety of applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	30	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	50	A
I_{DM}	Drain Current-Single Pulsed	350	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	68	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	2.2	$^\circ\text{C}/\text{W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62	$^\circ\text{C}/\text{W}$



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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$\text{V}_{\text{GS}}=0\text{V}; \text{I}_D=1\text{mA}$	30			V
$\text{V}_{\text{GS(th)}}$	Gate Threshold Voltage	$\text{V}_{\text{DS}}=\text{V}_{\text{GS}}; \text{I}_D=250 \mu\text{A}$	1		2.2	V
$\text{R}_{\text{DS(on)}}$	Drain-Source On-Resistance	$\text{V}_{\text{GS}}=10\text{V}; \text{I}_D=30\text{A}$			7.8	$\text{m}\Omega$
I_{GSS}	Gate-Source Leakage Current	$\text{V}_{\text{GS}}= 20\text{V}, \text{V}_{\text{DS}}=0\text{V}$			0.1	μA
I_{DSS}	Drain-Source Leakage Current	$\text{V}_{\text{DS}}=30\text{V}; \text{V}_{\text{GS}}= 0\text{V}$			1	μA
V_{SD}	Diode forward voltage	$\text{I}_F =30\text{A}, \text{V}_{\text{GS}} = 0 \text{ V}$			1.1	V