



Features

- Typ. $R_{DS(on)} = 22 \text{ m}\Omega$ @ $V_{GS} = 18 \text{ V}$
- Ultra Low Gate Charge ($Q_{G(tot)} = 137 \text{ nC}$)
- High Speed Switching with Low Capacitance ($C_{oss} = 146 \text{ pF}$)
- 100% Avalanche Tested
- This Device is Halide Free and RoHS Compliant with Exemption 7a, Pb Free 2LI (on Second Level Interconnection)

Typical Applications

- Solar Inverters
- Electric Vehicle Charging Stations
- UPS (Uninterruptible Power Supplies)
- Energy Storage Systems
- SMPS (Switch Mode Power Supplies)

MAXIMUM RATINGS ($T_J = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-to-Source Voltage	V_{DSS}	1200	V
Gate-to-Source Voltage	V_{GS}	-10/+22	V
Continuous Drain Current (Notes 1, 3)	Steady State $T_C = 25$		

NTH4L022N120M3S

Table 1. THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Junction-to-Case – Steady State (Note 1)	$R_{\theta JC}$	0.43	°C/W
Junction-to-Ambient – Steady State (Note 1)	$R_{\theta JA}$	40	

Table 2. RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol	Value	Unit
Operation Values of Gate-to-Source Voltage	V_{GSop}	-5...-3 +18	V

Functional

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TYPICAL CHARACTERISTICS

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