

Silicon Carbide (SiC) MOSFET – EliteSiC, 20 mohm, 1200 V, M1, TO-247-4L

NTH4L020N120SC1

Features

Typ. $R_{DS(on)} = 20 \text{ m}\Omega$

Ultra Low Gate Charge ($Q_{G(tot)} = 220 \text{ nC}$)

High Speed Switching with Low Capacitance ($C_{oss} = 258 \text{ pF}$)

100% Avalanche Tested

$T_J = 175^\circ\text{C}$

This Device is Halide Free and RoHS Compliant with exemption 7a,
Pb Free 2LI (on second level interconnection)

Typical Applications

UPS

DC-DC Converter

Boost Inverter

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} | | |

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Table 1. THERMAL RESISTANCE MAXIMUM RATINGS

| Parameter | Symbol | Max | Unit |
|--|-----------------|-----|-----------------------------|
| Junction to Case Steady State (Note 2) | $R_{\theta JC}$ | 0.3 | $^{\circ}\text{C}/\text{W}$ |
| Junction to Ambient | | | |

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Table 2. ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise specified) (continued)

| Parameter | Max | Unit |
|-----------|-----|------|
|-----------|-----|------|

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