

50 , 1 Ω, 24 -3',
025 0 5 1

Features

- Typ. $R_{DS(on)} = 19\text{ m}\Omega @ V_{GS} = 18\text{ V}$
 Typ. $R_{DS(on)} = 25\text{ m}\Omega @ V_{GS} = 15\text{ V}$
- Ultra Low Gate Charge ($Q_{G(tot)} = 164\text{ nC}$)
- Low Capacitance ($C_{oss} = 278\text{ pF}$)
- 100% Avalanche Tested
- AEC-Q101 Qualified and PPAP Capable
- This Device is Pb-Free and is RoHS Compliant

Typical Applications

- Automotive On Board Charger
- Automotive DC/DC Converter for EV/HEV

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

Parameter		Symbol	Value	Unit	
Drain-to-Source Voltage		V_{DSS}	650	V	
Gate-to-Source Voltage		V_{GS}	-8/+22	V	
Recommended Operation Values of Gate-to-Source Voltage		V_{GSop}	-5/+18	V	
Continuous Drain Current (Note 1)	Steady State	$T_C = 25^\circ\text{C}$	I_D	99	A
			P_D	348	W
Continuous Drain Current (Note 1)	Steady State	$T_C = 100^\circ\text{C}$	I_D	70	A
			P_D	174	W
Pulsed Drain Current (Note 2)	$T_C = 25^\circ\text{C}$		I_{DM}	323	A
Operating Junction and Storage Temperature Range		T_J, T_{stg}	-55 to +175	$^\circ\text{C}$	
Source Current (Body Diode)		I_S	75	A	

Single Pulse Drain-to-

NVHL025N065SC1

THERMAL RESISTANCE MAXIMUM RATINGS

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

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TYPICAL CHARACTERISTICS

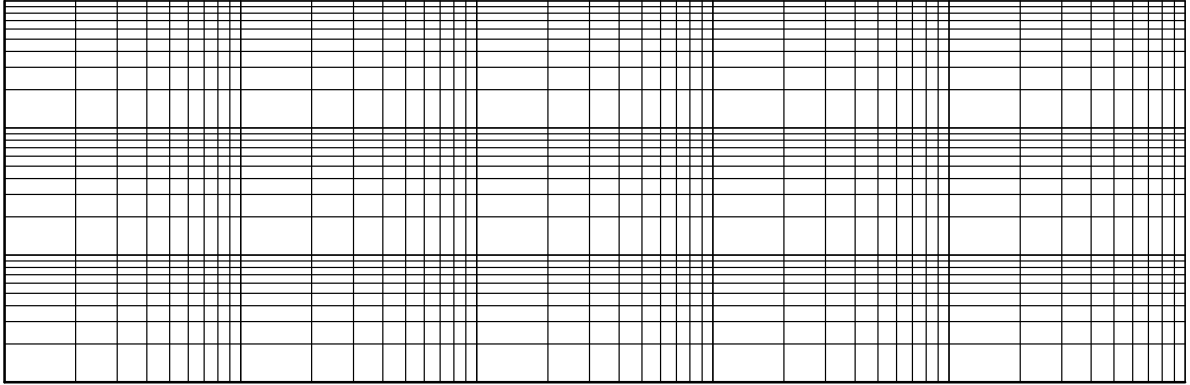


Figure 13. Junction to Case Thermal Response

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