



# NVH4L020N090SC1

**Table 1. THERMAL CHARACTERISTICS**

Parameter	Symbol	Max	Unit
Thermal Resistance Junction-to-Case (Note 1)	$R_{\theta JC}$	0.31	°C/W
Thermal Resistance Junction-to-Ambient (Note 1)	$R_{\theta JA}$	40	°C/W

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
<b>OFF CHARACTERISTICS</b>						
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0\text{ V}, I_D = 1\text{ mA}$	900			V
Drain-to-Source Breakdown Voltage Temperature Coefficient	$V_{(BR)DSS}/T_J$	$I_D = 1\text{ mA}$ , refer to $25^\circ\text{C}$		500		mV/°C
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{GS} = 0\text{ V}, V_{DS} = 900\text{ V}$	$T_J = 25^\circ\text{C}$		100	$\mu\text{A}$
			$T_J = 175^\circ\text{C}$		250	$\mu\text{A}$



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## TYPICAL CHARACTERISTICS

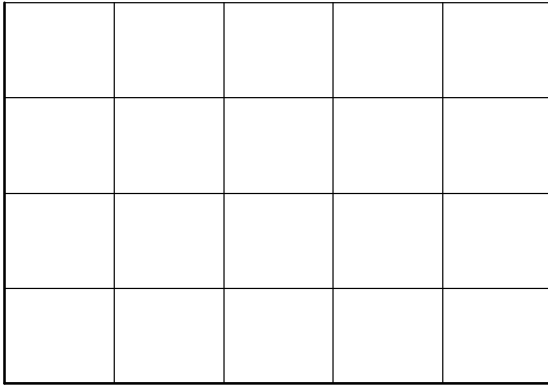


Figure 1. On-Region Characteristics

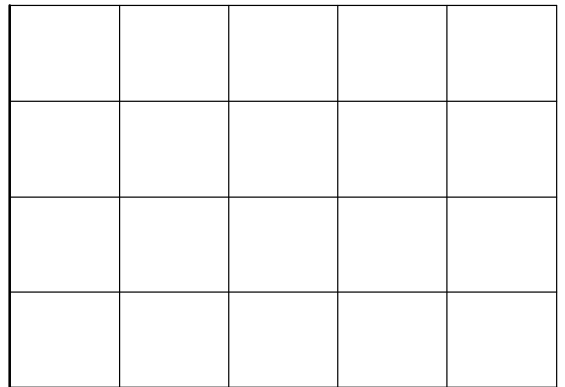


Figure 2. Normalized On-Resistance vs. Drain Current and Gate Voltage

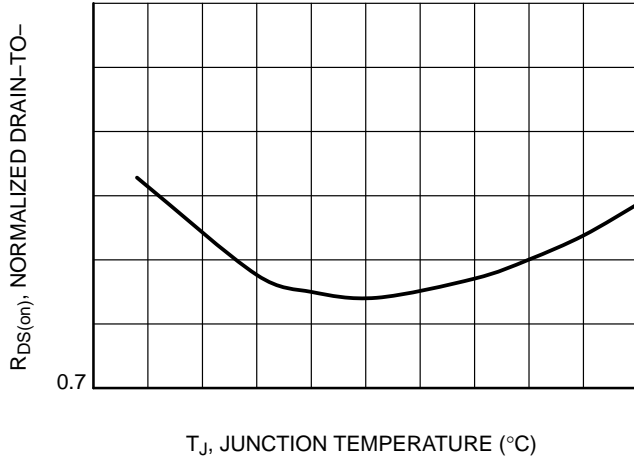


Figure 3. On-Resistance Variation with Temperature

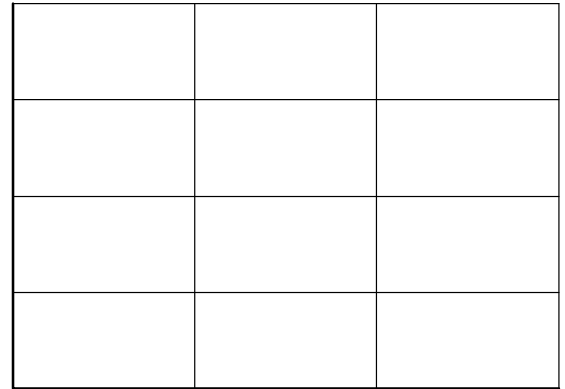


Figure 4. On-Resistance vs. Gate-to-Source Voltage



Figure 5. Transfer Characteristics

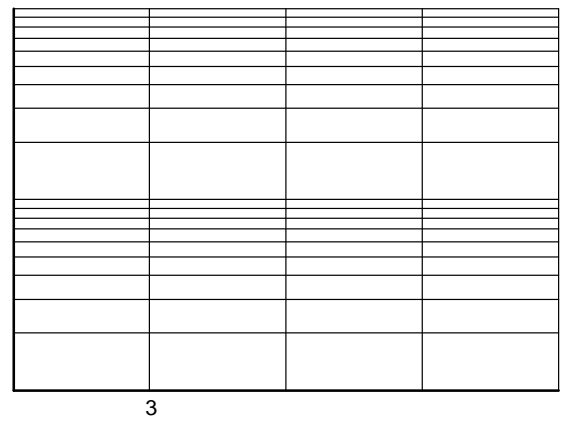


Figure 6. Diode Forward Voltage vs. Current



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## TYPICAL CHARACTERISTICS (continued)

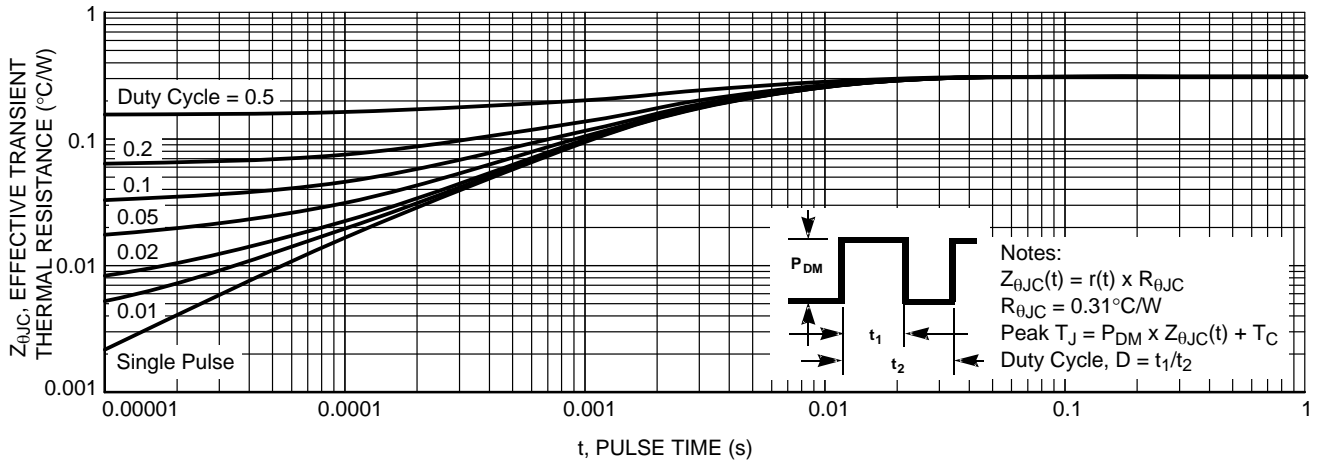


Figure 13. Junction-to-Ambient Transient Thermal Response Curve

### PACKAGE MARKING AND ORDERING INFORMATION

Part Number	Top Marking	Package	Packing Method	Reel Size	Tape Size	Quantity
NVH4L020N090SC1	H4L020090SC1	TO247-4L	Tube	N/A	N/A	30 Units

TO-247-4LD  
CASE 340CJ  
ISSUE A

DATE 16 SEP 2019

A E A B  
A2 E1  $\emptyset$ p1  
D2

E/2 Q

D D1

$\emptyset$

L1

b2 A1

b1 (3X) L

1 4

e1 b(4X) c

e 2X

$\oplus$  0.254 (M) B A (M)

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