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Typical Applications

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MAXIMUM RATINGS (T_J = 25°C unless otherwise noted)

Parameter	Symbol
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NTH4L040N120SC1

Table 1. THERMAL RESISTANCE MAXIMUM RATINGS

Parameter	Symbol	Max	Unit
Junction-to-Case – Steady State (Note 2)	$R_{\theta JC}$	0.47	°C/W
Junction-to-Ambient – Steady State (Notes 1, 2)	$R_{\theta JA}$	40	

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0\text{ V}, I_D = 1\text{ mA}$	1200	–	–	V
Drain-to-Source Breakdown Voltage Temperature Coefficient	$V_{(BR)DSS}/T_J$	$I_D = 1\text{ mA}$, referenced to 25°C	–	0.45	–	V/°C

Zero Gate Voltage Drain Current

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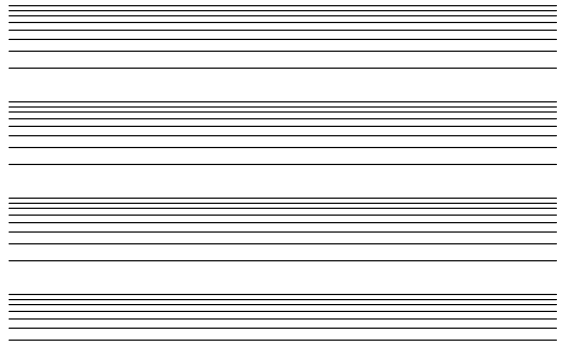
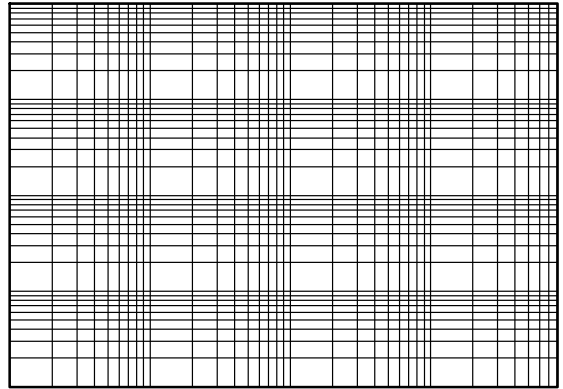
Table 2. ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise specified) (continued)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
DRAIN-SOURCE DIODE CHARACTERISTICS						
Reverse Recovery Energy	E_{REC}	$V_{GS} = -5/20\text{ V}$, $I_{SD} = 47\text{ A}$, $di_S/dt = 1000\text{ A}/\mu\text{s}$	–	8.4	–	μJ
Peak Reverse Recovery Current	I_{RRM}		–	10.4	–	A
Charge Time	T_a		–	12.4	–	ns
Discharge Time	T_b		–	11.6	–	ns

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

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TYPICAL CHARACTERISTICS (CONTINUED)



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TYPICAL CHARACTERISTICS (CONTINUED)

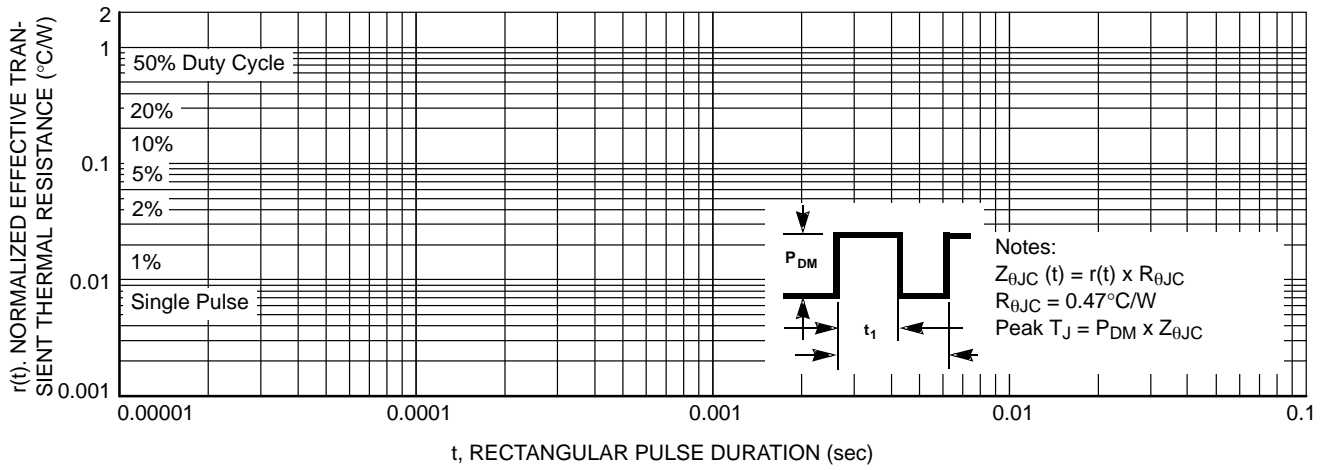


Figure 13. Junction-to-Ambient Thermal Response

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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