

Important notice

Dear Customer,

On 7 February 2017 the former NXP Standard Product business became a new company with the tradename **Nexperia**. Nexperia is an industry leading supplier of Discrete, Logic and PowerMOS semiconductors with its focus on the automotive, industrial, computing, consumer and wearable application markets

In data sheets and application notes which still contain NXP or Philips Semiconductors references, use the references to Nexperia, as shown below.

Instead of http://www.nxp.com, http://www.nxp.com, http://www.nexperia.com, http://www.nexperia.com)

Instead of sales.addresses@www.nxp.com or sales.addresses@www.semiconductors.philips.com, use salesaddresses@nexperia.com (email)

Replace the copyright notice at the bottom of each page or elsewhere in the document, depending on the version, as shown below:

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Should be replaced with:

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If you have any questions related to the data sheet, please contact our nearest sales office via e-mail or telephone (details via **salesaddresses@nexperia.com**). Thank you for your cooperation and understanding,

Kind regards,

Team Nexperia



Thermal RC network (Foster)

SPICE thermal model

BUK7E1R9-40E

Symbol R _{th(j-mb)}	thermal resistance from junction to mounting base Cth ₁ Cth ₂ Cth ₃ Cth ₄ Cth ₅ Cth ₆ Cth ₇ Cth ₈	2.404E-04 F 1.735E-03 F 1.299E-03 F 4.873E-03 F 1.648E-02 F 2.996E-02 F 6.007E-01 F	-	Тур	0.47 tj Rth1 Cth1	K/W
	Cth_2 Cth_3 Cth_4 Cth_5 Cth_6 Cth_7	1.735E-03 F 1.299E-03 F 4.873E-03 F 1.648E-02 F 2.996E-02 F				
	Cth_2 Cth_3 Cth_4 Cth_5 Cth_6 Cth_7	1.735E-03 F 1.299E-03 F 4.873E-03 F 1.648E-02 F 2.996E-02 F				
	Cth_3 Cth_4 Cth_5 Cth_6 Cth_7	1.299E-03 F 4.873E-03 F 1.648E-02 F 2.996E-02 F				
	Cth_4 Cth_5 Cth_6 Cth_7	4.873E-03 F 1.648E-02 F 2.996E-02 F			Rth ₁ Cth ₁	
	Cth_5 Cth_6 Cth_7	1.648E-02 F 2.996E-02 F			Rth ₁ Cth ₁	
	Cth ₆ Cth ₇	2.996E-02 F			Ctn1	
	Cth ₇				—	
		6.007E-01 F			1	
	Cth ₈			l r	←	
		1.529E+02 F			Rth ₂ + Cth ₂	
	Rth₁	3.714E-04 Ω				
	Rth ₂	7.331E-04 Ω		l r	5	
	Rth ₃	8.493E-03 Ω			Rth3 + Cth3	
	Rth ₄	2.053E-02 Ω		L	┸┿┷	
	Rth ₅	6.988E-02 Ω				
	Rth ₆	2.879E-01 Ω			Rth ₄ + Cth ₄	
	Rth ₇	8.385E-02 Ω			J''''4 T C'''4	
	Rth ₈	1.433E-03 Ω	((P)		
				\bigvee ,	_	
					Rth ₅ = Cth ₅	
					Rth ₆ + Cth ₆	
				l r	5	
					Rth7 = Cth7	
. .	DI 11/7E4D2 12E					
Part:	BUK7E1R9-40E				Rth8 + Cth8	
Date:	11/4/2013				J T Cui8	
Rth	0.47 K/W					
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