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4 Revision History

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

Changes from Revision D (February 2013) to Revision E	Page
Added <i>Device Information</i> table, <i>ESD Ratings</i> table, <i>Feature Description</i> section, <i>Device Functional Modes</i> section, <i>Application and Implementation</i> section, <i>Power Supply Recommendations</i> section, <i>Layout</i> section, <i>Device and Documentation Support</i> section, and <i>Mechanical, Packaging, and Orderable Information</i> section.....	1

Changes from Revision C (February 2013) to Revision D	Page
Changed layout of National Data Sheet to TI format	1

Electrical Characteristics (continued)

Typical values correspond to $T_J = 25^\circ\text{C}$, minimum and maximum limits apply over $T_J = -40^\circ\text{C}$ to 125°C , $V_{IN} = 24\text{ V}$, and $R_{ON} = 200\text{ k}\Omega$ (unless otherwise noted).⁽¹⁾⁽²⁾

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
THERMAL SHUTDOWN					
T_{SD}	Thermal shutdown temperature		175		$^\circ\text{C}$
	Thermal shutdown hysteresis		20		$^\circ\text{C}$

6.7 Switching Characteristics

Typical values correspond to $T_J = 25^\circ\text{C}$, minimum and maximum limits apply over $T_J = -40^\circ\text{C}$ to 125°C , and $V_{IN} = 24\text{ V}$ (unless otherwise noted).⁽¹⁾

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
$R_{DS(ON)}$	Buck switch				
	$f_{SW} = 200\text{ mA}$				
	$T_J \leq 125^\circ\text{C}$		0.35	0.8	Ω
	$T_J \leq 150^\circ\text{C}$			0.85	
$UVLO_{GD}$	Gate drive UVLO				
	$V_{BST} - V_{SW}$ increasing	1.7	3	4	V
	$UVLO_{GD}$ hysteresis		400		mV
OFF TIMER					
t_{OFF}	Minimum OFF-time		260		ns
ON TIMER					
t_{ON-1}	ON-time				
	$V_{IN} = 10\text{ V}$, $R_{ON} = 200\text{ k}\Omega$	2.1	2.75	3.4	μs
t_{ON-2}	ON-time				
	$V_{IN} = 42\text{ V}$, $R_{ON} = 200\text{ k}\Omega$	500	695	890	ns

(1) All minimum and maximum limits are specified by correlating the electrical characteristics to process and temperature variations while applying statistical process control.



