

Datasheet.pdf:

str.1

Dwa szybkie komparatory analogowe małej mocy z programowalnym wejściem i wyjściem rail-to-rail

<https://www.elektroda.pl/rtvforum/topic165784.html> - trochę opisane jest działanie wzmacniaczy operacyjnych rail to rail

str.54

Table 18. Voltage characteristics

Symbol	Ratings	Min	Max	Unit
V_{DD}	External supply voltage	- 0.3	4.0	V
V_{BAT}	External supply voltage on VBAT pin	- 0.3	4.0	
V_{REF+}	External voltage on VREF+ pin	- 0.3	$\text{Min}(V_{DD} + 0.4, 4.0)$	
$V_{IN}^{(1)}$	Input voltage on FT_xx pins except FT_c	- 0.3	$V_{DD} + 4.0^{(2)}$	
	Input voltage on FT_c pins	- 0.3	5.5	
	Input voltage on any other pin	- 0.3	4.0	

Aby utrzymać napięcie wyższe niż 4 V, wewnętrzne rezystory podciągające/ściągaające muszą być wyłączone.

str.55

Table 19. Current characteristics

Symbol	Ratings	Max	Unit
$I_{VDD/VDDA}$	Current into VDD/VDDA power pin (source) ⁽¹⁾	100	mA
$I_{VSS/VSSA}$	Current out of VSS/VSSA ground pin (sink) ⁽¹⁾	100	
$I_{IO(PIN)}$	Output current sunk by any I/O and control pin except FT_f	15	
	Output current sunk by any FT_f pin	20	
	Output current sourced by any I/O and control pin	15	
$\Sigma I_{IO(PIN)}$	Total output current sunk by sum of all I/Os and control pins	80	
	Total output current sourced by sum of all I/Os and control pins	80	
$I_{INJ(PIN)}^{(2)}$	Injected current on a FT_xx pin	-5 / NA ⁽³⁾	
	Injected current on a TT_a pin ⁽⁴⁾	-5 / 0	
$\Sigma I_{INJ(PIN)} $	Total injected current (sum of all I/Os and control pins) ⁽⁵⁾	25	

str.56

Table 21. General operating conditions (continued)

Symbol	Parameter	Conditions	Min	Max	Unit
V_{BAT}	Backup operating voltage	-	1.55	3.6	V
V_{IN}	I/O input voltage	All except TT_xx and FT_c	-0.3	$\text{Min}(V_{DD} + 3.6, 5.5)^{(2)}$	V
		TT_xx	-0.3	$V_{DD} + 0.3$	
		FT_c	-0.3	5.0 ⁽²⁾	

Table 51. I/O static characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
$V_{IL}^{(1)}$	I/O input low level voltage	All except FT_c	$1.62\text{ V} < V_{DDIO1} < 3.6\text{ V}$	-	-	$0.3 \times V_{DDIO1}^{(2)}$	V
						$0.39 \times V_{DDIO1}^{(3)} - 0.06$	
		FT_c	$2.7\text{ V} < V_{DDIO1} < 3.6\text{ V}$	-	-	$0.3 \times V_{DDIO1}$	
			$1.62\text{ V} < V_{DDIO1} < 2.7\text{ V}$	-	-	$0.25 \times V_{DDIO1}$	
$V_{IH}^{(1)}$	I/O input high level voltage	All except FT_c	$1.62\text{ V} < V_{DDIO1} < 3.6\text{ V}$	$0.7 \times V_{DDIO1}^{(4)}$	-	-	V
				$0.49 \times V_{DDIO1}^{(3)} + 0.26$	-	-	
		FT_c	$1.62\text{ V} < V_{DDIO1} < 3.6\text{ V}$	$0.7 \times V_{DDIO1}$	-	5	