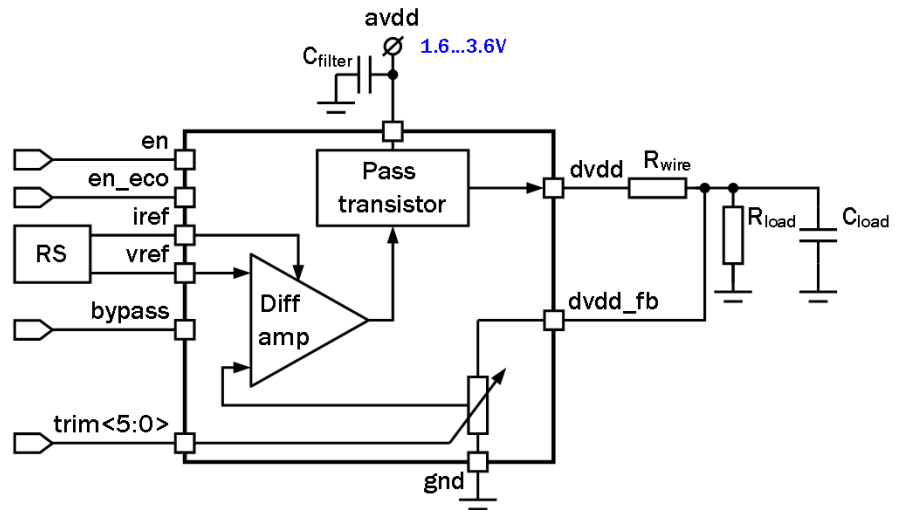


30mA LDO voltage regulator (output voltage 0.9V to 1.3V)
OVERVIEW

055GF_LDOVR_03 the voltage regulator is used to maintain a stable output voltage at varying input voltage. The block consists of a differential amplifier, pass transistor and resistor's divider. Differential amplifier compares reference voltage with voltage from a feedback divider and adjusts the impedance of a PMOS transistor for stabilization of output voltage at required level. The output voltage adjustment is defined by the trimming code trim. The block has low current consumption and allows high current load.



IP technology: Global Foundries CMOS 55 nm.

IP status: silicon proven.

Area: 0.027mm².

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Value			Units
			min	typ.	max	
Supply voltage	V_{avdd}	-	1.6	2.5	3.6	V
Operating temperature range	T_j	-	-40	27	+85	°C
Minimum output voltage	V_{dvdd_min}	-	-	-	0.9	V
Maximum output voltage	V_{dvdd_max}	-	1.3	-	-	
Input reference current	I_{ref}	-	-	250	-	nA
Load capacitance	C_{load}	-	-	0.5	20	nF
Max load current	I_{load}	Normal mode	30	-	-	mA
		Economy mode	2	-	-	
Current consumption	I_{cc}	Normal mode	-	15	-	uA
		Economy mode	-	3	-	
Input logic-level low	V_{IL}	For digital signals	0	-	$0.3 * V_{avdd}$	V
Input logic-level high	V_{IH}		$0.7 * V_{avdd}$	-	V_{avdd}	