

10 mA LDO voltage regulator (output voltage 1.8V)

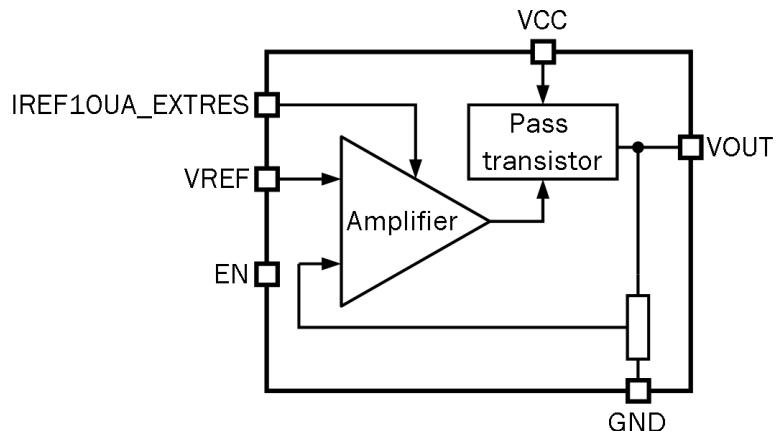
OVERVIEW

180TSMC_LDOVR_01 consists of a differential amplifier which compares reference voltage with voltage from a feedback divider. It adjusts the impedance of a PMOS transistor for stabilization of output voltage at a set level.

IP technology: TSMC SiGe BiCMOS 180nm.

IP status: silicon proven.

Area: 0.018mm².



ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Value			Units
			min	typ.	max	
Supply voltage	V _{CC}	-	2.4	3.0	3.6	V
Operating temperature range	T _j	-	-40	+27	+85	°C
Reference voltage	V _{REF}	-	-	1.16	-	V
Reference current	I _{REF}	-	-	10	-	uA
Maximum load current	I _{LOAD}	-	-	-	10	mA
Output voltage	V _{OUT}	-	-	1.8	-	V
Supply current	I _{CC}	-	-	30	-	uA
Stand-by current	I _{STB}	-	-	1	-	nA
Input logic-level high	V _{IH}	For digital inputs	0.9*V _{CC}	-	1.1*V _{CC}	V
Input logic-level low	V _{IL}		-0.2	-	0.2	V