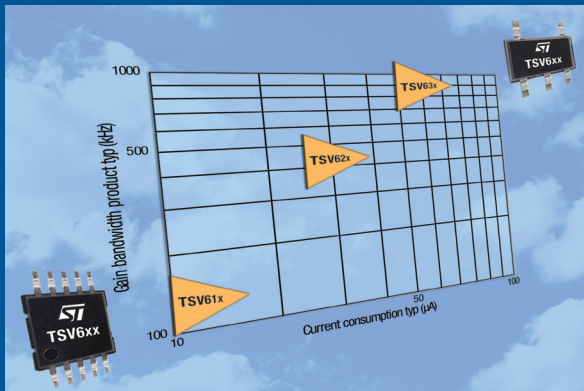


New micropower op-amps Zero trade-offs

TSV61x, TSV62x, TSV63x extend battery lifetime and offer high accuracy at low voltage



STMicroelectronics is a major player on the amplifier and comparator market. To better answer the needs for power saving in low-voltage applications, ST is now introducing new micropower op-amps families, the TSV61x, TSV62x and TSV63x.

These new op-amps are good candidates for those seeking the best compromise between power, bandwidth and precision. Depending on application needs, they offer the best range of consumption versus speed (TSV61x for the less consuming, TSV62x intermediate, TSV63x for the highest bandwidth). Processed in pure CMOS technology, they are housed in tiny packages for board space saving.

Key features

- Very low input offset voltage:
 - down to 500 μ V max.
- High merit factor:
 - TSV61x: 11 μ A, 120 kHz
 - TSV62x: 29 μ A, 420 kHz
 - TSV63x: 60 μ A, 880 kHz
- Ultra low supply voltage:
 - 5.5 V down to 1.5 V
- Shutdown function:
 - $I_{\text{standby}} = 5$ nA
- Rail-to-rail input/output
- Tiny packages:
 - SC70-5/6, SOT23-5/6
 - SOT23-8, MSO8
- High ESD tolerance (≥ 4 kV HBM)
- High EMI rejection ratio

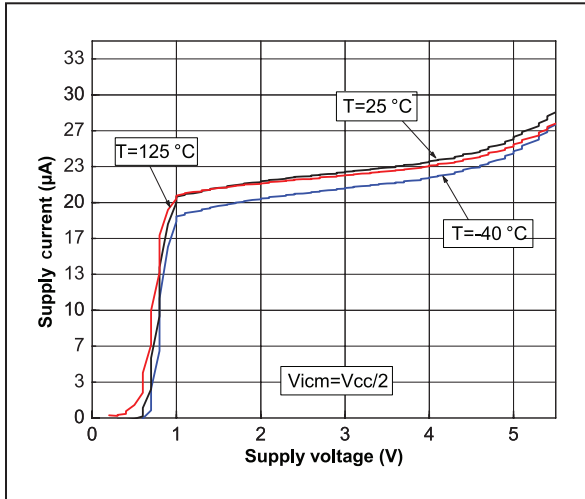
Key benefits

- Extend battery life
- High accuracy
- Board space saving
- Design robustness, high reliability

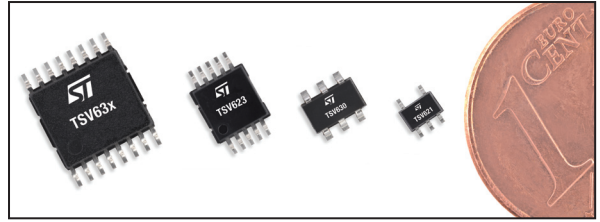
Target applications

- Battery-powered devices
- Handheld instruments
- Portable medical devices
- Portable communication systems
- Signal conditioning, filtering
- Smoke detectors

TSV62x: very stable supply current versus supply voltage and temperature



Packages

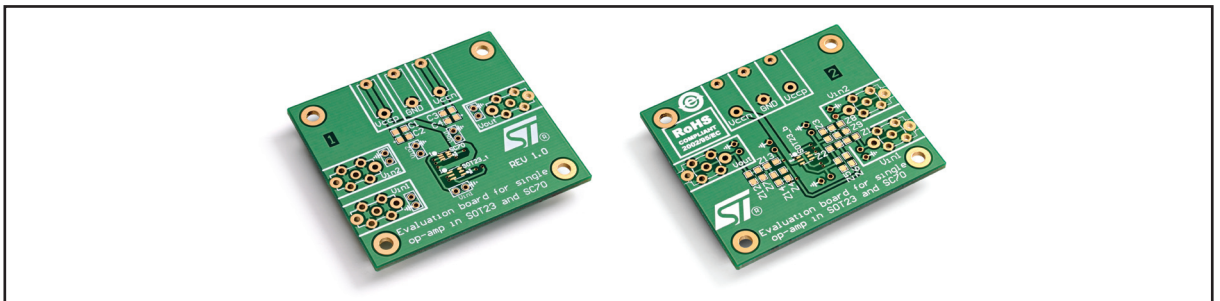


Product table

Part number	Number of operators	Supply current	Supply voltage		Input offset voltage (V _{io})	GBP	Slew rate	Output current (I _{out})	Standby	Packages
		I _{cc} typ. per op-amp (µA)	min. (V)	max. (V)	max. (mV)	typ. (kHz)	typ. (V/µs)	typ. (mA)		
TSV611*/2*	1/2	11	1.5	5.5	1/4	120	0.035	20	NA	SC70-5, SOT23-5, SO-8, MS08
TSV621	1	29	1.5	5.5	0.8/4	420	0.15	70	NA	SC70-5, SOT23-5
TSV622/3/4/5*	2/4	29	1.5	5.5	0.8/4	420	0.15	70	Y	MS08, SOT23-8, SO-8, MS010, TSSOP14, TSSOP16
TSV630/1	1	60	1.5	5.5	0.5/3	880	0.3	70	Y	SC70-5/6, SOT23-5/6
TSV632/3/4/5	2/4	60	1.5	5.5	0.8/3	880	0.3	70	Y	MS08, SOT23-8, SO-8, MS010, TSSOP14, TSSOP16

*coming soon

Evaluation board



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