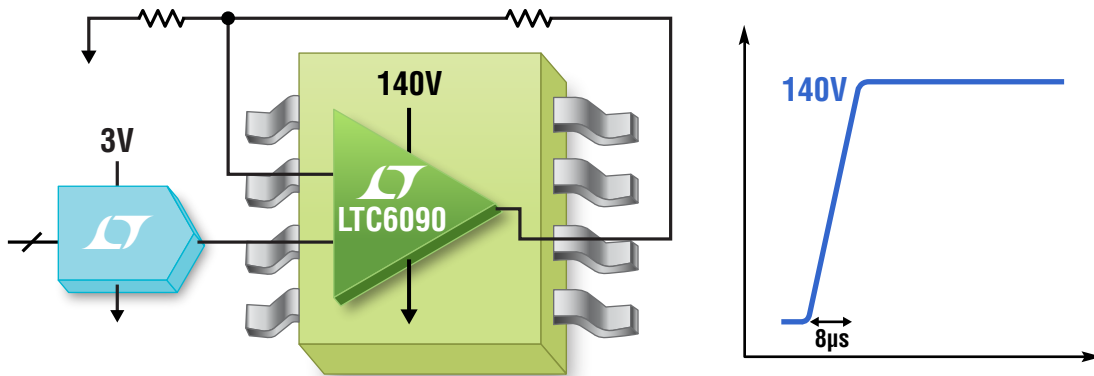


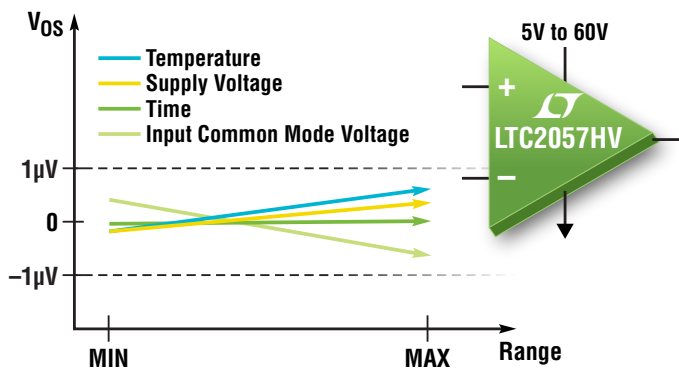
# High Voltage Amplifiers



## LTC6090/LTC6091 Single/Dual Op Amp

*High Voltage + Precision*

- Up to 140V Supply
- Rail-to-Rail Output
- $3.5\mu\text{V}_{\text{P-P}}$  0.1Hz to 10Hz Noise
- 1mV  $V_{\text{OS}}$  Max
- 50pA Bias Current Max



## LTC2057 Zero-Drift Op Amp

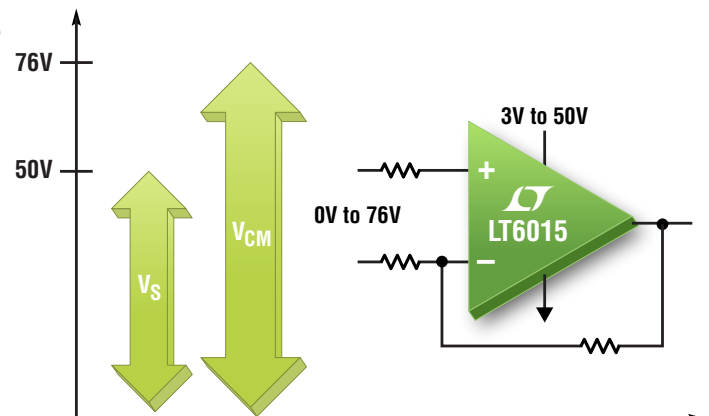
*Stable over time, temperature, input common mode range and supply voltage*

- Up to 60V Supply
- $4.5\mu\text{V}$   $V_{\text{OS}}$  Max
- $0.015\mu\text{V}/^\circ\text{C}$   $\text{TCV}_{\text{OS}}$  Max
- $210\text{nV}_{\text{P-P}}$  0.1Hz to 10Hz Noise
- Rail-to-Rail Output

## LT6015/LT6016/LT6017 Over-The-Top® Op Amps

*Precision + Protection*

- 76V Input Common Mode Range
- Up to 50V Supply
- Rail-to-Rail Input and Output
- $50\mu\text{V}$   $V_{\text{OS}}$  Max
- Rugged Protection
  - Reverse Battery
  - Split Inputs
  - Negative Input Transient
  - Output Driven with No Supply



LT, LT, LTC, LTM, Linear Technology, the Linear logo and Over-The-Top are registered trademarks of Linear Technology Corporation. All other trademarks are the property of their respective owners.

Good
Better
Best



## Selected Operational Amplifiers $V_S > 30V$

Highest Precision

Single Part Number	Dual Part Number	Quad Part Number	$V_{OS}$ Max (μV)	$TCV_{OS}$ Max (μV/C)	$I_{BIAS}$ Max (nA)	GBW Typ (MHz)	Slew Rate Typ (V/μs)	$e_n$ Typ (nV/rtHz)	$I_{OUT}$ Typ (mA)	$I_S$ Max (mA)	$V_S$ Min (V)	$V_S$ Max (V)	Rail-to-Rail I/O
LTC2057			4.5	0.015	0.2	1.5	0.45	12	30	1.35	4.75	60	Out
LTC1150	LTC1151		10	0.05	0.1	2.5	3		12	1.5	4.75	32	
LT1001	LT1002		25	0.6	2	0.8	0.25	9.6	25	2.5	6	44	
LT1007			25	0.6	35	8	2.5	2.5	20.8	4	8	44	
LT1012			25	0.6	0.1	1	0.2	14	13	0.5	2.4	40	
LT1037			25	0.6	35	60	15	2.5	20.8	4.3	8	44	
LT6010	LT6011	LT6012	35	0.8	0.11	0.33	0.09	14	5	0.15	2.7	40	Out
LT6013	LT6014		35	0.8	0.25	1.4	0.2	9.5	14	0.165	2.7	40	Out
LT1028			40	0.8	90	75	15	0.85	30	9.5	8	44	
LT1077	LT1078	LT1079	40	1.6	9	0.23	0.08	27	25	0.06	2.3	44	
LT1006			50	1.3	15	0.6	0.4	22	25	0.52	2.7	44	
LT1097			50	1.2	0.25	0.7	0.2	14	14	0.56	2.4	40	
	LT1881	LT1882	50	0.8	0.2	1	0.35	14	10	0.9	2.7	40	Out
	LT1884	LT1885	50	0.8	0.4	2	0.9	9.5	10	0.9	2.7	40	Out
LT6015	LT6016	LT6017	50	3	5	3.2	0.75	18	25	0.345	3	50	Yes, OTT
	LT1112	LT1114	60	0.5	0.25	0.75	0.3	14	10	0.4	2	40	
LT1677	LT1678	LT1679	60	1.5	20	7.2	2.5	3.2	35	3.5	2.7	44	Yes
	LT1124	LT1125	70	1	20	12.5	4.5	2.7	22	2.75	8	44	
	LT1178	LT1179	70	0.6	5	0.085	0.04	49	30	0.017	2.2	44	
LT1468	LT1469		75	2	40	90	22	5	22	5	9	36	
LT1008			120	1.5	0.1	1	0.2	14	9	0.6	4	40	
	LT1013	LT1014	150	2	20	0.8	0.4	22	25	0.5	4	44	
	LT1211	LT1212	150	1.5	100	13	7	12	50	1.8	2.5	36	
	LT1213	LT1214	150	1.5	160	28	8.5	10	50	3.8	2.5	36	
LT1880			150	1.2	0.9	1.1	0.55	13	10	1.9	2.7	40	Out
	LT1492	LT1493	180	3	100	4.5	3	16.5	60	0.55	2.5	36	
LT1115			200	0.5 Typ	380	70	15	0.9	30	11.5	8	44	
	LT1215	LT1216	300	2.5	500	23	30	12	50	6.6	2.5	36	
LT1222			300	5 Typ	300	500	200	3	26	10.5	5	36	
LT1637	LT1638	LT1639	350	3	50	1	0.35	27	60	0.25	3	44	Yes, OTT
LT1494	LT1495	LT1496	375	2	1	0.0027	0.001	185	1.3	0.0015	2.2	36	Yes, OTT
LT1672	LT1673	LT1674	375	2	1	0.012	0.005	185	1.3	0.002	2.2	36	Yes, OTT
	LT1057	LT1058	450	10	0.05	5	14	13	20	2.5	10	40	
	LT1366	LT1367	475	6	35	0.4	0.13	29	75	0.52	2	36	Yes
	LT1368	LT1369	475	6	35	0.16	0.065	29	75	0.52	2	36	Yes
	LT1498	LT1499	475	2.5	650	10.5	4.5	12	24	2.2	2.2	36	Yes
LT1636	LT1490A	LT1491A	500	4	8	0.18	0.06	50	25	0.055	2.5	44	Yes, OTT
	LT1630	LT1631	525	5.5	1000	30	9.2	6	41	4.4	2.7	36	Yes
LT1122			600	18	0.075	14	80	14	20	10	10	40	
LT1351	LT1352	LT1353	600	8	50	3	200	14	45	0.33	5	36	
LT1357	LT1358	LT1359	600	8	500	25	600	8	30	2.5	5	36	
LT1792			600	10	0.8	5.6	3.4	4.2	27	5.2	10	40	
LT1055			700	12	0.05	4.5	12	15	30	4	10	40	
LT1056			800	12	0.05	5.5	14	15	30	7	10	40	
LT1354	LT1355	LT1356	800	8	300	12	400	10	42	1.25	5	36	
	LT1462	LT1463	800	20	0.002	0.175	0.13	76	17	0.045	10	40	
	LT1464	LT1465	800	20	0.002	1	0.9	24		0.2	10	40	
LT1793			800	13	0.01	4.2	3.4	6	27	5.2	10	40	
	LT1113		1500	1.5	0.45	5.6	3.9	4.5	20	6.25	9	40	
LTC6090			1000	19	0.05	10	19	14	50	3.9	9.5	140	Out
LT1220			1000	20 Typ	300	45	250	17	26	10.5	5	36	
	LT1632	LT1633	1350	15	2200	45	27	12	40	5.2	2.7	36	Yes
LT1224			2000	25 Typ	8000	45	400	22	40	9	5	36	
LT1360	LT1361	LT1362	1000	12	1000	50	800	9	34	4.8	5	36	
	LT1795		13000		5000	65	900	3.6	1000	34	10	36	
LT1206	LT1207		10000	10 Typ	8000	66	900	3.6	500	30	10	36	
LT1210			15000	10 Typ	5000	66	900	3	2000	50	10	36	
LT1363	LT1364	LT1365	1500	13	2000	70	1000	9	60	7.5	5	36	
LT1223			3000		3000	100	1000	33	60	10	5	36	
LT1228			5000	10 Typ	1000	100	500	20	65	15	4	36	
	LT1229	LT1230	10000	10 Typ	3000	100	700	3.2	65	9.5	4	36	
LT1227			10000	10 Typ	3000	140	1100	3.2	60	15	4	36	
LT1225			1000	10 Typ	8000	150	400	7.5	40	9	5	36	
	LT1794		5000	10 Typ	4000	200	600	8	720	13.5	8	36	
LT1226			1000	6 Typ	8000	1000	400	2.6	40	9	5	36	

Fastest

\* Some parameters vary between single/dual/quad versions. For a complete list of products and full specifications visit [www.linear.com](http://www.linear.com)  
OTT = Over-The-Top. This feature allows full functionality when the input voltage exceeds the supply voltage. See data sheet for details.