

[By Category PDF](#)

Category Amplifiers & Linear

ICs

Amplifiers & Linear

Operational Amplifiers ————— 13

High Performance (Products with multiple features)	13
Low Offset Voltage (Input Offset Voltage $\leq 2.5\text{mV}$)	14
Low Noise (Equivalent Input Noise Voltage $\leq 20\text{nV}/\sqrt{\text{Hz}}$)	14
High Speed (GBW $\geq 5\text{MHz}$)	15
Low Power (Circuit Current $\leq 100\mu\text{A}/\text{ch}$)	15
General Purpose	17

Comparators ————— 19

Standard	19
High Speed	20
Low Power Consumption	20

High Speed (GBW \geq 5MHz)**Automotive High Speed Operational Amplifier**

Part No.	ch	Supply Voltage (V)	Circuit Current (Typ) (mA)	Input Offset Voltage (Max) (mV)	Input Bias Current (Typ) (nA)	Output Current (Typ) (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (Typ) (dB)	CMRR (Typ) (dB)	PSRR (Typ) (dB)	Slew Rate (Typ) (V/ μ s)	GBW (Typ) (MHz)	Equivalent Input Noise Voltage (Typ) (nV/ \sqrt Hz)	Operating temperature ($^{\circ}$ C)	Package	Part No. Suffix	ComfySIL™ Functional Safety*1	Automotive Grade AEC-Q100
LMR1701Y	1	2.7 to 5.5	9.6	6	0.0026	200	V_{SS} to $V_{DD}-0.9$	$V_{SS}+0.020$ to $V_{DD}-0.015$	120	80	86	80	150	3	-40 to +125	SSOP6	G-C	FSs	YES

High Speed Operational Amplifiers

Part No.	ch	Supply Voltage (V)	Circuit Current (Typ) (mA)	Input Offset Voltage (Max) (mV)	Input Bias Current (Typ) (nA)	Output Current (Typ) (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (Typ) (dB)	CMRR (Typ) (dB)	PSRR (Typ) (dB)	Slew Rate (Typ) (V/ μ s)	GBW (Typ) (MHz)	Equivalent Input Noise Voltage (Typ) (nV/ \sqrt Hz)	Operating temperature ($^{\circ}$ C)	Package	Part No. Suffix
LMR1701	1	2.7 to 5.5	9.6	6	0.0026	200	V_{SS} to $V_{DD}-0.9$	$V_{SS}+0.02$ to $V_{DD}-0.015$	120	80	86	80	150	3	-40 to +125	SSOP6	G-LB
Nano EMARMOUR BD77501	1	7 to 15	1.3	27	0.001	7.5	V_{SS} to $V_{DD}-2.0$	$V_{SS}+0.07$ to $V_{DD}-0.06$	75	70	70	10	8	—	-40 to +85	SSOP5	G
Nano EMARMOUR BD77502	2	7 to 15	2.6	27	0.001	7.5	V_{SS} to $V_{DD}-2.0$	$V_{SS}+0.07$ to $V_{DD}-0.06$	75	70	70	10	8	—	-40 to +85	MSOP8	FVM
Nano EMARMOUR BD77504	4	7 to 15	5.2	27	0.001	7.5	V_{SS} to $V_{DD}-2.0$	$V_{SS}+0.07$ to $V_{DD}-0.06$	75	70	70	10	8	—	-40 to +85	SSOP-B14	FV
BU7485/ BU7485S	1	3.0 to 5.5	1.5	9.5	0.001	8	V_{SS} to $V_{DD}-1.4$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	10	10	—	-40 to +85/-40 to +105	SSOP5	G
BU7486/ BU7486S	2	3.0 to 5.5	3	9.5	0.001	8	V_{SS} to $V_{DD}-1.4$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	10	10	—	-40 to +85/-40 to +105	SOP8	F
																SSOP-B8	FV
																MSOP8	FVM
BU7487/ BU7487S	4	3.0 to 5.5	6	9.5	0.001	8	V_{SS} to $V_{DD}-1.4$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	10	10	—	-40 to +85/-40 to +105	SOP14	F
LMR821	1	2.5 to 5.5	0.325	3.5	40	40	V_{SS} to $V_{DD}-0.9$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	90	85	2	5.5	30	-40 to +85	SSOP5	G
LMR822	2	2.5 to 5.5	0.65	5	40	40	V_{SS} to $V_{DD}-0.9$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	90	85	2	5.5	30	-40 to +85	SOP8	F
																SOP-J8	FJ
																SSOP-B8	FV
																TSSOP-B8J	FVJ
																MSOP8	FVM
																TSSOP-B8	FVT
LMR824	4	2.5 to 5.5	1.13	5	40	40	V_{SS} to $V_{DD}-0.9$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	90	85	2	5.5	30	-40 to +85	SOP14	F
BA2107	1	2 to 14	1.8	6	150	1.4	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{SS}+0.2$ to $V_{DD}-0.2$	80	74	80	4	12	—	-40 to +85	SSOP5	G

©ComfySIL™ is a trademark or a registered trademark of ROHM Co., Ltd.

*1 For more information about "ComfySIL™ Functional Safety", please refer to the reverse side of the cover.

 Nano Mark is a product using Nano Pulse Control™ technology, Nano Energy™ technology or Nano Cap™ technology. ROHM's innovative "Nano" power supply technologies achieve breakthrough energy savings and miniaturization.

 EMARMOUR Mark is a product equipped with Nano Cap™ extremely stable control technology. Nano Energy™, Nano Pulse Control™ and Nano Cap™ is a trademark or a registered trademark of ROHM Co., Ltd.

 EMARMOUR™ is a trademark or a registered trademark of ROHM Co., Ltd.

Low Power (Circuit Current \leq 100 μ A/ch)**Automotive Rail-to-Rail Input/Output Low Power Operational Amplifiers**

Part No.	ch	Supply Voltage (V)	Circuit Current (Typ) (μ A)	Input Offset Voltage (Max) (mV)	Input Bias Current (Typ) (nA)	Output Current (Typ) (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (Typ) (dB)	CMRR (Typ) (dB)	PSRR (Typ) (dB)	Slew Rate (Typ) (V/ μ s)	GBW (Typ) (MHz)	Equivalent Input Noise Voltage (Typ) (nV/ \sqrt Hz)	Operating temperature ($^{\circ}$ C)	Package	Part No. Suffix	ComfySIL™ Functional Safety*1	Automotive Grade AEC-Q100
BU7241Y	1	1.8 to 5.5	70	10	0.001	10	V_{SS} to V_{DD}	$V_{SS}+0.05$ to $V_{DD}-0.05$	100	70	80	0.4	1.0	—	-40 to +125	SSOP5	G-C	FSs	YES
BU7242Y	2	1.8 to 5.5	180	10	0.001	10	V_{SS} to V_{DD}	$V_{SS}+0.05$ to $V_{DD}-0.05$	100	70	80	0.4	1.0	—	-40 to +125	MSOP8	FVM-C	FSs	YES
BU7244Y	4	1.8 to 5.5	360	10	0.001	10	V_{SS} to V_{DD}	$V_{SS}+0.05$ to $V_{DD}-0.05$	100	70	80	0.4	1.0	—	-40 to +125	SSOP-B14	FV-C	FSs	YES

©ComfySIL™ is a trademark or a registered trademark of ROHM Co., Ltd.

*1 For more information about "ComfySIL™ Functional Safety", please refer to the reverse side of the cover.

Comparators

Standard

Open-Collector Comparators

Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Voltage Gain (dB)	Response Time (μs)	Operating Temperature (°C)	Package	Part No. Suffix
New LM8391	1	3 to 36	0.3	2 (Max: 5)	50	16	V _{EE} to V _{CC} -1.5	120	1.3	-40 to +125	SSOP5	G-LB
LM2903	2	3 to 32	0.6	1	50	16	V _{EE} to V _{CC} -1.5	120	1	-40 to +125	SOP8 SOP-J8 SSOP-B8 TSSOP-B8J MSOP8 TSSOP-B8	F FJ FV FVJ FVM FVT
LM2901	4	3 to 32	1.2	1	50	16	V _{EE} to V _{CC} -1.5	120	1	-40 to +125	SOP14 SOP-J14 SSOP-B14 TSSOP-B14J	F FJ FV FVJ
LM393	2	3 to 32	0.6	1	50	16	V _{EE} to V _{CC} -1.5	120	1	-40 to +85	SOP8 SOP-J8 SSOP-B8 TSSOP-B8J MSOP8 TSSOP-B8	F FJ FV FVJ FVM FVT
LM339	4	3 to 32	1.2	1	50	16	V _{EE} to V _{CC} -1.5	120	1	-40 to +85	SOP14 SOP-J14 SSOP-B14 TSSOP-B14J	F FJ FV FVJ
BA2903Y	2	2 to 36	0.6	2	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125	SOP8	F-LB
BA2901Y	4	2 to 36	0.8	2	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125	SOP14	F-LB
BA2903/ BA2903S	2	2 to 36	0.6	2	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125/ -40 to +105	SOP8 SSOP-B8 MSOP8	F FV FVM
BA2901/ BA2901S	4	2 to 36	0.8	2	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125/ -40 to +105	SOP14 SSOP-B14	F FV
BA8391	1	2 to 36	0.3	2	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +85	SSOP5	G

Automotive Open-Collector Comparators

Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Voltage Gain (dB)	Response Time (μs)	Operating Temperature (°C)	Package	Part No. Suffix	ComfySIL™ Functional Safety*1	Automotive Grade AEC-Q100
BA2903Y	2	2 to 36	0.6	2 (Max: 4)	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125	SOP8 SSOP-B8 MSOP8	F-C FV-C FVM-C	FSs FSs FSs	YES YES YES
BA2901Y	4	2 to 36	0.8	2 (Max: 4)	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125	SOP14 SSOP-B14	F-C FV-C	FSs FSs	YES YES
BA2903Y	2	2 to 36	0.6	2 (Max: 7)	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125	SOP8 SSOP-B8 MSOP8	F-M FV-M FVM-M	FSs FSs FSs	YES YES YES
BA2901Y	4	2 to 36	0.8	2 (Max: 7)	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125	SOP14 SSOP-B14	F-M FV-M	FSs FSs	YES YES

Automotive Excellent EMI Immunity Open-Collector Comparators (EMARMOUR™ series)

Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Voltage Gain (dB)	Response Time (μs)	Operating Temperature (°C)	Package	Part No. Suffix	ComfySIL™ Functional Safety*1	Automotive Grade AEC-Q100
New LM8391EY	1	3 to 36	0.3	2 (Max: 5)	50	16	V _{EE} to V _{CC} -1.5	120	1.3	-40 to +150	SSOP5	G-C	FSs	YES
LM2903EY	2	3 to 32	0.6	2	50	16	V _{EE} to V _{CC} -1.5	120	1.3	-40 to +150	SOP-J8	FJ-C	FSs	YES
LM2901EY	4	3 to 32	1.2	2	50	16	V _{EE} to V _{CC} -1.5	120	1.3	-40 to +150	SSOP-B14	FV-C	FSs	YES
BA82903Y	2	2 to 36	0.6	2	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125	SOP8 MSOP8	F-C FVM-C	FSs FSs	YES YES
BA82901Y	4	2 to 36	0.8	2	50	16	V _{EE} to V _{CC} -1.5	100	1.3	-40 to +125	SOP14 SSOP-B14	F-C FV-C	FSs FSs	YES YES

©ComfySIL™ is a trademark or a registered trademark of ROHM Co., Ltd.

*1 For more information about "ComfySIL™ Functional Safety", please refer to the reverse side of the cover.

The EMARMOUR™ series achieves the Industry-leading noise immunity. EMARMOUR™ is a trademark or a registered trademark of ROHM Co., Ltd.

EMARMOUR™ is a trademark or a registered trademark of ROHM Co., Ltd.

High Speed

Push-Pull Comparators

Part No.	ch	Supply Voltage (V)	Circuit Current (μ A)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Voltage Gain (dB)	Response Time (μ s)	Operating Temperature (°C)	Package	Part No. Suffix
BU7251/ BU7251S	1	1.8 to 5.5	15	1	0.001	6	V_{SS} to V_{DD}	90	0.55	-40 to +85/ -40 to +105	SSOP5	G
BU7252/ BU7252S	2	1.8 to 5.5	35	1	0.001	6	V_{SS} to V_{DD}	90	0.55	-40 to +85/ -40 to +105	SOP8	F
BU5265/ BU5265S	1	1.8 to 5.5	22	1	0.001	3.5	V_{SS} to V_{DD}	90	0.5	-40 to +85/ -40 to +105	HVSOF5	HFV

Open-Drain Comparators

Part No.	ch	Supply Voltage (V)	Circuit Current (μ A)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Voltage Gain (dB)	Response Time (μ s)	Operating Temperature (°C)	Package	Part No. Suffix
BU7250/ BU7250S	1	1.8 to 5.5	15	1	0.001	6	V_{SS} to V_{DD}	90	0.75	-40 to +85/ -40 to +105	SSOP5	G
BU7253/ BU7253S	2	1.8 to 5.5	35	1	0.001	6	V_{SS} to V_{DD}	90	0.75	-40 to +85/ -40 to +105	SOP8	F

Low Power Consumption

Push-Pull Comparators

Part No.	ch	Supply Voltage (V)	Circuit Current (μ A)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Voltage Gain (dB)	Response Time (μ s)	Operating Temperature (°C)	Package	Part No. Suffix
BU7231/ BU7231S	1	1.8 to 5.5	5	1	0.001	6	V_{SS} to V_{DD}	90	1.7	-40 to +85/ -40 to +105	SSOP5	G
BU7232/ BU7232S	2	1.8 to 5.5	10	1	0.001	6	V_{SS} to V_{DD}	90	1.7	-40 to +85/ -40 to +105	SOP8	F
BU5255/ BU5255S	1	1.8 to 5.5	6.5	1	0.001	3.5	V_{SS} to V_{DD}	90	1.6	-40 to +85/ -40 to +105	HVSOF5	HFV

Automotive Push-Pull Comparator

Part No.	ch	Supply Voltage (V)	Circuit Current (μ A)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Voltage Gain (dB)	Response Time (μ s)	Operating Temperature (°C)	Package	Part No. Suffix	ComfySIL™ Functional Safety*1	Automotive Grade AEC-Q100
BU7232Y	2	1.8 to 5.5	10	1	0.001	7	V_{SS} to V_{DD}	100	1.7	-40 to +125	MSOP8	FVM-C	FSs	YES

Open-Drain Comparators

Part No.	ch	Supply Voltage (V)	Circuit Current (μ A)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Voltage Gain (dB)	Response Time (μ s)	Operating Temperature (°C)	Package	Part No. Suffix
BU7230/ BU7230S	1	1.8 to 5.5	5	1	0.001	6	V_{SS} to V_{DD}	90	1.8	-40 to +85/ -40 to +105	SSOP5	G
BU7233/ BU7233S	2	1.8 to 5.5	10	1	0.001	6	V_{SS} to V_{DD}	90	1.8	-40 to +85/ -40 to +105	SOP8	F

Automotive Open-Drain Comparator

Part No.	ch	Supply Voltage (V)	Circuit Current (μ A)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Voltage Gain (dB)	Response Time (μ s)	Operating Temperature (°C)	Package	Part No. Suffix	ComfySIL™ Functional Safety*1	Automotive Grade AEC-Q100
BU7233Y	2	1.8 to 5.5	10	1	0.001	7	V_{SS} to V_{DD}	100	1.8	-40 to +125	SOP8	F-C	FSs	YES

©ComfySIL™ is a trademark or a registered trademark of ROHM Co., Ltd.

*1 For more information about "ComfySIL™ Functional Safety", please refer to the reverse side of the cover.