

# Operational Amplifiers/ Comparators

Operational Amplifiers/Comparators			
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# Operational Amplifiers

## Standard

Amplifiers &amp; Linear

Ground Sense Operational Amplifiers																
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix
BA2904/ BA2904S	2	3 to 36	0.5	2.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125/ -40 to +105	SOP8	F
															SSOP-B8	FV
															MSOP8	FVM
BA2904Y	2	3 to 36	0.5	2.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125	SOP8	F-LB
BA2902/ BA2902S	4	3 to 36	0.7	2.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125/ -40 to +105	SOP14	F
															SSOP-B14	FV
BA2902Y	4	3 to 36	0.7	2.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125	SOP14	F-LB
BA3404	2	4 to 36	2.0	2.0	70	30	$V_{EE}$ to $V_{CC}-2.0$	$V_{EE}$ to $V_{CC}-2.0$	100	90	94	1.2	1.2	-40 to +85	SOP8	F
															SOP-J8	FJ
															MSOP8	FVM
LM2902	4	3 to 32	1.0	1.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.3	0.8	-40 to +125	SOP14	F
															SOP-J14	FJ
															SSOP-B14	FV
															TSSOP-B14J	FVJ
LM2904	2	3 to 32	0.6	1.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.3	0.8	-40 to +125	SOP8	F
															SOP-J8	FJ
															SSOP-B8	FV
															TSSOP-B8J	FVJ
															MSOP8	FVM
TSSOP-B8	FVT															
LM324	4	3 to 32	1.0	1.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}+0.01$ to $V_{CC}-1.5$	100	80	100	0.3	0.8	-40 to +85	SOP14	F
															SOP-J14	FJ
															SSOP-B14	FV
LM358	2	3 to 32	0.6	1.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}+0.01$ to $V_{CC}-1.5$	100	80	100	0.3	0.8	-40 to +85	SOP8	F
															SOP-J8	FJ
															SSOP-B8	FV
															TSSOP-B8J	FVJ
															MSOP8	FVM
TSSOP-B8	FVT															

  

Automotive Ground Sense Operational Amplifiers																	
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix	Automotive Grade AEC-Q100
BA2904Y	2	3 to 36	0.5	2.0 (Max: 3.5)	20 (Max: 60)	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125	SOP8	F-C	YES
															SSOP-B8	FV-C	YES
															MSOP8	FVM-C	YES
BA2902Y	4	3 to 36	0.7	2.0 (Max: 3.8)	20 (Max: 60)	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125	SOP14	F-C	YES
SSOP-B14	FV-C	YES															
BA2904Y	2	3 to 36	0.5	2.0 (Max: 7.0)	20 (Max: 250)	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125	SOP8	F-M	YES
															SSOP-B8	FV-M	YES
															MSOP8	FVM-M	YES
BA2902Y	4	3 to 36	0.7	2.0 (Max: 7.0)	20 (Max: 250)	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125	SOP14	F-M	YES
															SSOP-B14	FV-M	YES

  

Automotive Excellent EMI Characteristics Ground Sense Operational Amplifiers (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)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix	Automotive Grade AEC-Q100
BA82904Y	2	3 to 36	0.5	2.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125	SOP8	F-C	YES
															MSOP8	FVM-C	YES
BA82902Y	4	3 to 36	0.7	2.0	20	30	$V_{EE}$ to $V_{CC}-1.5$	$V_{EE}$ to $V_{CC}-1.5$	100	80	100	0.2	0.5	-40 to +125	SOP14	F-C	YES
															SOP-J14	FJ-C	YES
															SSOP-B14	FV-C	YES
															TSSOP-B14J	FVJ-C	YES

  

Automotive Excellent EMI Characteristics Input-Output Full Swing Operational Amplifiers (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)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix	Automotive Grade AEC-Q100
<b>New</b> BD87581Y	1	4 to 14	2.3	1	0.001	3.5	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.25$ to $V_{DD}-0.25$	110	60	80	3.5	4	-40 to +125	SSOP5	G-C	YES
<b>New</b> BD87582Y	2	4 to 14	5	1	0.001	3.5	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.03$ to $V_{DD}-0.05$	110	60	80	3.5	4	-40 to +125	MSOP8	FVM-C	YES

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## High Speed

Input-Output Full Swing Operational Amplifiers																
Part No.	ch	Supply Voltage (V)	Circuit Current (μA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix
BU7261/ BU7261S	1	1.8 to 5.5	250	1.0	0.001	10	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	1.1	2.0	-40 to +85/ -40 to +105	SSOP5	G
BU7262/ BU7262S	2	1.8 to 5.5	550	1.0	0.001	10	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	1.1	2.0	-40 to +85/ -40 to +105	SOP8	F
															MSOP8	FVM
															VSON008X2030	NUX
BU7264/ BU7264S	4	1.8 to 5.5	1,100	1.0	0.001	10	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	1.1	2.0	-40 to +85/ -40 to +105	SOP14	F
														SSOP-B14	FV	
BU7291/ BU7291S	1	2.4 to 5.5	470	1.0	0.001	8	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	3.0	2.8	-40 to +85/ -40 to +105	SSOP5	G
BU7294/ BU7294S	4	2.4 to 5.5	2,000	1.0	0.001	8	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	3.0	2.8	-40 to +85/ -40 to +105	SOP14	F
														SSOP-B14	FV	
BU7295/ BU7295S	1	1.8 to 5.5	150	1.0	0.001	8	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	1.0	1.0	-40 to +85/ -40 to +105	HVSOF5	HFV
BU7255/ BU7255S	1	2.4 to 5.5	540	1.0	0.001	4	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	3.4	4.0	-40 to +85/ -40 to +105	HVSOF5	HFV
BD7561/ BD7561S	1	5.0 to 14.5	440	1.0	0.001	8	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.9	1.0	-40 to +85/ -40 to +105	SSOP5	G
BD7562/ BD7562S	2	5.0 to 14.5	900	1.0	0.001	8	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.9	1.0	-40 to +85/ -40 to +105	SOP8	F
														MSOP8	FVM	
Ground Sense Operational Amplifiers																
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix
BA3472	2	3 to 36	4.0	1.0	100	30	$V_{EE}$ to $V_{CC}-2.0$	$V_{EE}+0.3$ to $V_{CC}-1.0$	100	97	97	10.0	4.0	-40 to +85	SOP8	F
															SSOP-B8	FV
															SOP-J8	FJ
															MSOP8	FVM
															TSSOP-B8	FVT
BA3472R														-40 to +105	MSOP8	FVM
BA3472Y														-40 to +125	SOP8	F-LB
BA3474	4	3 to 36	8.0	1.0	100	30	$V_{EE}$ to $V_{CC}-2.0$	$V_{EE}+0.3$ to $V_{CC}-1.0$	100	97	97	10.0	4.0	-40 to +75	SOP14	F
														-40 to +85	SSOP-B14	FV
														-40 to +105	TSSOP-B14J	FVJ
BA3474R														-40 to +105	SSOP-B14	FV
BU7461/ BU7461S	1	1.7 to 5.5	0.15	1.0	0.001	8	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	1.0	1.0	-40 to +85/ -40 to +105	SSOP5	G
BU7462/ BU7462S	2	1.7 to 5.5	0.3	1.0	0.001	8	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	1.0	1.0	-40 to +85/ -40 to +105	SOP8	F
														MSOP8	FVM	
														VSON008X2030	NUX	
BU7464/ BU7464S	4	1.7 to 5.5	0.6	1.0	0.001	8	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	1.0	1.0	-40 to +85/ -40 to +105	SOP14	F
BU7465/ BU7465S	1	1.7 to 5.5	0.12	1.0	0.001	8	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	100	60	80	1.0	1.2	-40 to +85/ -40 to +105	HVSOF5	HFV
BU7481/ BU7481S	1	1.8 to 5.5	0.42	1.0	0.001	8	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	3.2	2.8	-40 to +85/ -40 to +105	SSOP5	G
BU7485/ BU7485S	1	3.0 to 5.5	1.5	1.0	0.001	8	$V_{SS}$ to $V_{DD}-1.4$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	10.0	10.0	-40 to +85/ -40 to +105	SSOP5	G
BU7486/ BU7486S	2	3.0 to 5.5	3.0	1.0	0.001	8	$V_{SS}$ to $V_{DD}-1.4$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	10.0	10.0	-40 to +85/ -40 to +105	SOP8	F
														SSOP-B8	FV	
														MSOP8	FVM	
BU7487/ BU7487S	4	3.0 to 5.5	6.0	1.0	0.001	8	$V_{SS}$ to $V_{DD}-1.4$	$V_{SS}+0.1$ to $V_{DD}-0.1$	105	60	80	10.0	10.0	-40 to +85/ -40 to +105	SOP14	F
														SSOP-B14	FV	
BU7495/ BU7495S	1	1.8 to 5.5	0.65	1.0	0.001	7	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	100	60	80	5.0	4.0	-40 to +85/ -40 to +105	HVSOF5	HFV

## High Speed

### Automotive Ground Sense Operational Amplifiers

Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix	Automotive Grade AEC-Q100
BA3472Y/ BA3472W	2	3 to 36	4.0	1.0 (Max: 10.0)/ 1.0 (Max: 7.5)	100	30	$V_{EE}$ to $V_{CC}-2.0$	$V_{EE}+0.3$ to $V_{CC}-1.0$	100	97	97	10	4.0	-40 to +125	SOP8	F-C	YES
															SSOP-B8	FV-C	YES
															MSOP8	FVM-C	YES
BA3474Y/ BA3474W	4	3 to 36	8.0	1.0 (Max: 10.0)/ 1.0 (Max: 7.5)	100	30	$V_{EE}$ to $V_{CC}-2.0$	$V_{EE}+0.3$ to $V_{CC}-1.0$	100	97	97	10	4.0	-40 to +125	SSOP-B14	FV-C	YES
															SSOP-B14		YES

### Automotive Excellent EMI Characteristics Ground Sense Operational Amplifiers (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)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix	Automotive Grade AEC-Q100
<b>New</b> BA83472Y	2	3 to 36	4.3	1	100	30	$V_{EE}$ to $V_{CC}-2.0$	$V_{EE}+0.25$ to $V_{CC}-0.25$	100	97	97	8.5	3	-40 to +125	SOP8	F-C	YES

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## Low Power Consumption

### Input-Output Full Speed Operational Amplifiers

Part No.	ch	Supply Voltage (V)	Circuit Current (μA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix
BU7205/ BU7205S	1	1.8 to 5.5	0.4	1.0	0.001	1.2	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.0025	0.0025	-40 to +85/ -40 to +105	HVSOF5	HFV
BU7241/ BU7241S	1	1.8 to 5.5	70	1.0	0.001	10	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.4	0.9	-40 to +85/ -40 to +105	SSOP5	G
BU7242/ BU7242S	2	1.8 to 5.5	180	1.0	0.001	10	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.4	0.9	-40 to +85/ -40 to +105	SOP8	F
															MSOP8	FVM
															VSON008X2030	NUX
BU7244/ BU7244S	4	1.8 to 5.5	360	1.0	0.001	10	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.4	0.9	-40 to +85/ -40 to +105	SOP14	F
															SSOP-B14	FV
BU7245/ BU7245S	1	1.8 to 5.5	5	1.0	0.001	4	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.035	0.09	-40 to +85/ -40 to +105	HVSOF5	HFV
BU7265/ BU7265S	1	1.8 to 5.5	0.35	1.0	0.001	2.4	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.0024	0.004	-40 to +85/ -40 to +105	SSOP5	G
BU7266/ BU7266S	2	1.8 to 5.5	0.7	1.0	0.001	2.4	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.0024	0.004	-40 to +85/ -40 to +105	SOP8	F
															SSOP-B8	FV
															MSOP8	FVM
BU7271/ BU7271S	1	1.8 to 5.5	8.6	1.0	0.001	4	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	100	60	80	0.05	0.09	-40 to +85/ -40 to +105	SSOP5	G
BU7275/ BU7275S	1	1.8 to 5.5	40	1.0	0.001	8	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.3	0.6	-40 to +85/ -40 to +105	HVSOF5	HFV
BD12730	1	1.8 to 5.5	320	1.0	50	5	GND to $V_{+}$	0.1 to $V_{+}-0.1$	85	70	85	0.4	1.0	-40 to +85	SSOP5	G
BD12732	2	1.8 to 5.5	580	1.0	50	5	GND to $V_{+}$	0.1 to $V_{+}-0.1$	85	70	85	0.4	1.0	-40 to +85	SOP8	F
															SOP-J8	FJ
															SSOP-B8	FV
															TSSOP-B8J	FVJ
															MSOP8	FVM
TSSOP-B8	FVT															
BD12734	4	1.8 to 5.5	1,200	1.0	50	5	GND to $V_{+}$	0.1 to $V_{+}-0.1$	85	70	85	0.4	1.0	-40 to +85	SOP14	F
															SOP-J14	FJ
															SSOP-B14	FV
															TSSOP-B14J	FVJ
BD7541/ BD7541S	1	5.0 to 14.5	180	1.0	0.001	4	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.3	0.6	-40 to +85/ -40 to +105	SSOP5	G
BD7542/ BD7542S	2	5.0 to 14.5	400	1.0	0.001	4	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.3	0.6	-40 to +85/ -40 to +105	SOP8	F
															MSOP8	FVM
LMR931	1	1.8 to 5.0	80	1.0	5	28	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.04$ to $V_{DD}-0.05$	100	94	85	0.4	1.4	-40 to +85	SSOP5	G
LMR932	2	1.8 to 5.0	135	1.0	5	28	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.04$ to $V_{DD}-0.05$	100	94	85	0.4	1.4	-40 to +85	SOP8	F
															SOP-J8	FJ
															SSOP-B8	FV
															TSSOP-B8J	FVJ
															MSOP8	FVM
TSSOP-B8	FVT															
LMR934	4	1.8 to 5.0	250	1.0	5	28	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.04$ to $V_{DD}-0.05$	100	94	85	0.4	1.4	-40 to +85	SOP14	F
															SOP-J14	FJ
															SSOP-B14	FV
															TSSOP-B14J	FVJ
LMR981	1	1.8 to 5.0	80	1.0	5	28	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.04$ to $V_{DD}-0.05$	100	94	85	0.4	1.4	-40 to +85	SSOP6	G
LMR982	2	1.8 to 5.0	135	1.0	5	28	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.04$ to $V_{DD}-0.05$	100	94	85	0.4	1.4	-40 to +85	MSOP10	FVM

Low Power Consumption

Ground Sense Operational Amplifiers																	
Part No.	ch	Supply Voltage (V)	Circuit Current (μA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix	
BU7411/ BU7411S	1	1.6 to 5.5	0.35	1.0	0.001	2.4	V <sub>SS</sub> to V <sub>DD</sub> -1.0	V <sub>SS</sub> +0.1 to V <sub>DD</sub> -0.1	95	60	80	0.0024	0.004	-40 to +85/ -40 to +105	SSOP5	G	
BU7421/ BU7421S	1	1.7 to 5.5	8.5	1.0	0.001	4	V <sub>SS</sub> to V <sub>DD</sub> -1.2	V <sub>SS</sub> +0.1 to V <sub>DD</sub> -0.1	100	60	80	0.05	0.09	-40 to +85/ -40 to +105	SSOP5	G	
BU7441/ BU7441S	1	1.7 to 5.5	50	1.0	0.001	6	V <sub>SS</sub> to V <sub>DD</sub> -1.2	V <sub>SS</sub> +0.1 to V <sub>DD</sub> -0.1	95	60	80	0.3	0.6	-40 to +85/ -40 to +105	SSOP5	G	
BU7442/ BU7442S	2	1.7 to 5.5	100	1.0	0.001	6	V <sub>SS</sub> to V <sub>DD</sub> -1.2	V <sub>SS</sub> +0.1 to V <sub>DD</sub> -0.1	95	60	80	0.3	0.6	-40 to +85/ -40 to +105	SOP8	F	
															MSOP8	FVM	
															VSON008X2030	NUX	
BU7444/ BU7444S	4	1.7 to 5.5	200	1.0	0.001	6	V <sub>SS</sub> to V <sub>DD</sub> -1.2	V <sub>SS</sub> +0.1 to V <sub>DD</sub> -0.1	95	60	80	0.3	0.6	-40 to +85/ -40 to +105	SOP14	F	
BU7445/ BU7445S	1	1.7 to 5.5	40	1.0	0.001	8	V <sub>SS</sub> to V <sub>DD</sub> -1.2	V <sub>SS</sub> +0.1 to V <sub>DD</sub> -0.1	100	60	80	0.25	0.4	-40 to +85/ -40 to +105	HVSOF5	HFV	
BU7475/ BU7475S	1	1.7 to 5.5	9	1.0	0.001	7	V <sub>SS</sub> to V <sub>DD</sub> -1.2	V <sub>SS</sub> +0.1 to V <sub>DD</sub> -0.1	100	60	80	0.05	0.1	-40 to +85/ -40 to +105	HVSOF5	HFV	
BD1321	1	2.7 to 5.5	130	0.1	15	70	V <sub>EE</sub> to V <sub>CC</sub> -0.8	V <sub>EE</sub> +0.08 to V <sub>CC</sub> -0.04	110	90	90	1.0	3.0	-40 to +85	SSOP5	G	
LMR321	1	2.7 to 5.5	130	0.1	15	70	V <sub>EE</sub> to V <sub>CC</sub> -0.8	V <sub>EE</sub> +0.08 to V <sub>CC</sub> -0.04	110	90	90	1.0	3.0	-40 to +85	SSOP5	G	
LMR324	4	2.7 to 5.5	410	1.0	15	70	V <sub>EE</sub> to V <sub>CC</sub> -0.8	V <sub>EE</sub> +0.08 to V <sub>CC</sub> -0.04	110	90	90	1.0	3.0	-40 to +85	SOP14	F	
															SOP-J14	FJ	
															SSOP-B14	FV	
															TSSOP-B14J	FVJ	
LMR341	1	2.7 to 5.5	100	0.25	0.001	24	V <sub>SS</sub> to V <sub>DD</sub> -1.0	V <sub>SS</sub> +0.06 to V <sub>DD</sub> -0.06	103	80	85	1.0	2.0	-40 to +85	SSOP6	G	
LMR342	2	2.7 to 5.5	200	0.25	0.001	24	V <sub>SS</sub> to V <sub>DD</sub> -1.0	V <sub>SS</sub> +0.06 to V <sub>DD</sub> -0.06	103	80	85	1.0	2.0	-40 to +85	SOP8	F	
															SOP-J8	FJ	
															SSOP-B8	FV	
															TSSOP-B8J	FVJ	
															MSOP8	FVM	
															TSSOP-B8	FVT	
LMR344	4	2.7 to 5.5	400	0.25	0.001	24	V <sub>SS</sub> to V <sub>DD</sub> -1.0	V <sub>SS</sub> +0.06 to V <sub>DD</sub> -0.06	103	80	85	1.0	2.0	-40 to +85	SOP14	F	
LMR358	2	2.7 to 5.5	210	0.1	15	70	V <sub>EE</sub> to V <sub>CC</sub> -0.8	V <sub>EE</sub> +0.08 to V <sub>CC</sub> -0.04	110	90	90	1.0	3.0	-40 to +85	SOP8	F	
															SOP-J8	FJ	
															SSOP-B8	FV	
															TSSOP-B8J	FVJ	
															MSOP8	FVM	
															TSSOP-B8	FVT	
LMR821	1	2.5 to 5.5	280	1.0	30	16	V <sub>SS</sub> to V <sub>DD</sub> -0.9	V <sub>SS</sub> +0.12 to V <sub>DD</sub> -0.1	100	85	85	2.0	5.0	-40 to +85	SSOP5	G	
LMR822	2	2.5 to 5.5	560	1.0	30	16	V <sub>SS</sub> to V <sub>DD</sub> -0.9	V <sub>SS</sub> +0.12 to V <sub>DD</sub> -0.1	100	85	85	2.0	5.0	-40 to +85	SOP8	F	
															SOP-J8	FJ	
															SSOP-B8	FV	
															TSSOP-B8J	FVJ	
															MSOP8	FVM	
LMR824	4	2.5 to 5.5	1,120	1.0	30	16	V <sub>SS</sub> to V <sub>DD</sub> -0.9	V <sub>SS</sub> +0.12 to V <sub>DD</sub> -0.1	100	85	85	2.0	5.0	-40 to +85	SOP14	F	
TLR341	1	1.8 to 5.5	70	0.3	0.001	8	V <sub>SS</sub> to V <sub>DD</sub> -1.0	V <sub>SS</sub> +0.055 to V <sub>DD</sub> -0.05	100	90	95	1.2	2.2	-40 to +85	SSOP6	G	
TLR342	2	1.8 to 5.5	150	0.3	0.001	8	V <sub>SS</sub> to V <sub>DD</sub> -1.0	V <sub>SS</sub> +0.055 to V <sub>DD</sub> -0.05	100	85	95	1.0	1.2	-40 to +85	SOP8	F	
															SOP-J8	FJ	
															TSSOP-B8J	FVJ	
															TSSOP-B8	FVT	
TLR344	4	1.8 to 5.5	300	0.3	0.001	8	V <sub>SS</sub> to V <sub>DD</sub> -1.0	V <sub>SS</sub> +0.055 to V <sub>DD</sub> -0.05	100	90	95	1.2	2.2	-40 to +85	SOP14	F	
															SOP-J14	FJ	
															TSSOP-B14J	FVJ	
Automotive Input-Output Full Swing Operational Amplifiers																	
Part No.	ch	Supply Voltage (V)	Circuit Current (μA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix	Automotive Grade AEC-Q100
BU7241Y	1	1.8 to 5.5	70	1.0	0.001	10	V <sub>SS</sub> to V <sub>DD</sub>	V <sub>SS</sub> +0.05 to V <sub>DD</sub> -0.05	100	70	80	0.4	1.0	-40 to +125	SSOP5	G-C	YES
BU7242Y	2	1.8 to 5.5	180	1.0	0.001	10	V <sub>SS</sub> to V <sub>DD</sub>	V <sub>SS</sub> +0.05 to V <sub>DD</sub> -0.05	100	70	80	0.4	1.0	-40 to +125	MSOP8	FVM-C	YES
BU7244Y	4	1.8 to 5.5	360	1.0	0.001	10	V <sub>SS</sub> to V <sub>DD</sub>	V <sub>SS</sub> +0.05 to V <sub>DD</sub> -0.05	100	70	80	0.4	1.0	-40 to +125	SSOP-B14	FV-C	YES

## Low Noise

Output Full Swing Operational Amplifiers																	
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Input Referred Noise Voltage ( $\mu\text{Vrms}$ )	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/ $\mu\text{s}$ )	Gain Bandwidth Product (MHz)	Operating Temperature ( $^{\circ}\text{C}$ )	Package	Part No. Suffix	
BA4510	2	$\pm 1$ to $\pm 3.5$	5.0	1.0	80	0.7	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{EE}+0.1$ to $V_{CC}-0.1$	90	80	80	5.0	10.0	-20 to +75	SOP8	F	
															SSOP-B8	FV	
															MSOP8	FVM	
															TSSOP-B8	FVT	
BA2107	1	$\pm 1$ to $\pm 7$	1.8	1.0	150	0.9	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{EE}+0.1$ to $V_{CC}-0.1$	80	74	80	4.0	12.0	-40 to +85	SSOP5	G	
BA2115	2	$\pm 1$ to $\pm 7$	3.5	1.0	150	0.9	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{EE}+0.1$ to $V_{CC}-0.1$	80	74	80	4.0	12.0	-40 to +85	SOP8	F	
															SOP-J8	FJ	
															MSOP8	FVM	
Automotive Operational Amplifiers																	
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Input Referred Noise Voltage ( $\mu\text{Vrms}$ )	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/ $\mu\text{s}$ )	Gain Bandwidth Product (MHz)	Operating Temperature ( $^{\circ}\text{C}$ )	Package	Part No. Suffix	Automotive Grade AEC-Q100
BA4558Y	2	$\pm 4$ to $\pm 15$	3.0	0.5	60	1.8	$V_{EE}+1.0$ to $V_{CC}-1.0$	$V_{EE}+1.0$ to $V_{CC}-1.0$	100	90	90	1.0	2.0	-40 to +105	SOP8	F-M	YES
															SSOP-B8	FV-M	YES
															MSOP8	FVM-M	YES
BA4560Y	2	$\pm 4$ to $\pm 15$	3.0	0.5	50	1.0	$V_{EE}+1.0$ to $V_{CC}-1.0$	$V_{EE}+1.0$ to $V_{CC}-1.0$	100	90	90	4.0	4.0	-40 to +105	SOP8	F-M	YES
															SSOP-B8	FV-M	YES
															MSOP8	FVM-M	YES
BA4580Y	2	$\pm 2$ to $\pm 16$	6.0	0.3	100	0.8	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{EE}+1.5$ to $V_{CC}-1.5$	110	110	110	5.0	10.0	-40 to +105	SOP8	F-M	YES
															MSOP8	FVM-M	YES
BA4584Y	4	$\pm 2$ to $\pm 16$	11.0	0.3	100	0.8	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{EE}+1.5$ to $V_{CC}-1.5$	110	110	110	5.0	10.0	-40 to +105	SSOP-B14	FV-M	YES
Dual Supply Voltage Operational Amplifiers																	
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Input Referred Noise Voltage ( $\mu\text{Vrms}$ )	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/ $\mu\text{s}$ )	Gain Bandwidth Product (MHz)	Operating Temperature ( $^{\circ}\text{C}$ )	Package	Part No. Suffix	
BA4558/ BA4558R	2	$\pm 4$ to $\pm 15$	3.0	0.5	60	1.8	$V_{EE}+1.0$ to $V_{CC}-1.0$	$V_{EE}+1.0$ to $V_{CC}-1.0$	100	90	90	1.0	2.0	-40 to +85/ -40 to +105	SOP8	F	
															SOP-J8	FJ	
															SSOP-B8	FV	
															MSOP8	FVM	
															TSSOP-B8	FVT	
BA4560/ BA4560R	2	$\pm 4$ to $\pm 15$	4.0	0.5	50	1.0	$V_{EE}+1.0$ to $V_{CC}-1.0$	$V_{EE}+1.0$ to $V_{CC}-1.0$	100	90	90	4.0	10.0	-40 to +85/ -40 to +105	SOP8	F	
															SOP-J8	FJ	
															SSOP-B8	FV	
															MSOP8	FVM	
															TSSOP-B8	FVT	
BA4564R	4	$\pm 4$ to $\pm 15$	6.0	0.5	50	1.0	$V_{EE}+1.0$ to $V_{CC}-1.0$	$V_{EE}+1.0$ to $V_{CC}-1.0$	100	90	90	4.0	4.0	-40 to +105	SSOP-B14	FV	
BA15218	2	$\pm 2$ to $\pm 16$	5.0	0.5	50	1.0	$V_{EE}+1.0$ to $V_{CC}-1.0$	$V_{EE}+2.0$ to $V_{CC}-2.0$	110	90	90	3.0	10.0	-40 to +85	SOP8	F	
BA14741	4	$\pm 2$ to $\pm 18$	3.0	1.0	60	2.0	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{EE}+2.5$ to $V_{CC}-2.5$	100	100	100	1.0	2.0	-40 to +85	SOP14	F	
															SOP-J14	FJ	
BA15532	2	$\pm 3$ to $\pm 20$	8.0	0.5	200	1.5	$V_{EE}+2.0$ to $V_{CC}-2.0$	$V_{EE}+2.0$ to $V_{CC}-2.0$	94	100	100	8.0	20.0	-20 to +75	SOP8	F	
BA4580R	2	$\pm 2$ to $\pm 16$	6.0	0.3	100	0.8	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{EE}+1.5$ to $V_{CC}-1.5$	110	110	110	5.0	5.0	-40 to +105	SOP8	F	
															SOP-J8	FJ	
															MSOP8	FVM	
															TSSOP-B8	FVT	
BA4584	4	$\pm 2$ to $\pm 16$	12.0	0.3	100	0.8	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{EE}+1.5$ to $V_{CC}-1.5$	110	110	110	5.0	5.0	-40 to +85	SSOP-B14	FV	
BA4584R	4	$\pm 2$ to $\pm 9.5$	11.0	0.3	100	0.8	$V_{EE}+1.5$ to $V_{CC}-1.5$	$V_{EE}+1.5$ to $V_{CC}-1.5$	110	110	110	5.0	5.0	-40 to +105	SOP14	F	
															SSOP-B14	FV	
LM4559	2	$\pm 4$ to $\pm 18$	3.3	0.5	40	0.7	$V_{EE}+2.0$ to $V_{CC}-2.0$	$V_{EE}+1.5$ to $V_{CC}-1.5$	110	100	100	3.5	4.0	-40 to +85	SOP8	F	
															SOP-J8	FJ	
															SSOP-B8	FV	
															TSSOP-B8	FVT	
															MSOP8	FVM	
															TSSOP-B8J	FVJ	
LM4565	2	$\pm 4$ to $\pm 18$	4.5	0.5	70	0.6	$V_{EE}+1.0$ to $V_{CC}-1.0$	$V_{EE}+1.0$ to $V_{CC}-1.0$	100	100	100	5.0	10.0	-40 to +85	SOP8	F	
															SOP-J8	FJ	
															SSOP-B8	FV	
															TSSOP-B8	FVT	
															MSOP8	FVM	
															TSSOP-B8J	FVJ	



**Low Offset Voltage**

Dual Supply Voltage Operational Amplifier																
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix
<b>BA4564W</b>	4	±4 to ±15	6.0	0.5	50	25	$V_{EE}+1.0$ to $V_{CC}-1.0$	$V_{EE}+1.0$ to $V_{CC}-1.0$	100	90	90	4.0	4.0	-40 to +105	SSOP-B14	FV
Input-Output Full Swing Operational Amplifier																
<b>BD5291</b>	1	1.7 to 5.5	0.65	0.1	0.001	6	$V_{SS}$ to $V_{DD}$	$V_{SS}+0.1$ to $V_{DD}-0.1$	110	90	90	2.5	3.2	-40 to +85	SSOP5 VSOF5	G FVE

**High Performance**

Ultra Low Noise Ground Sense Operational Amplifier																	
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (μV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Input Referred Noise Voltage (nV/√Hz)	Operating Temperature (°C)	Package	Part No. Suffix
<b>New</b> LMR1801	1	2.2 to 5.5	0.95	5 (Max: 900)	0.0005	3.5	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.05$ to $V_{DD}-0.05$	140	100	125	2.5	6.0	5.0	-40 to +125	SSOP5 HVSOF5	G-LB HFV-LB
LMR1802	1	2.5 to 5.5	1.1	5 (Max: 450)	0.0005	3.5	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.05$ to $V_{DD}-0.05$	140	105	125	1.1	3.0	2.9	-40 to +125	SSOP5	G-LB
<b>New</b> LMR1803	1	2.2 to 5.5	1.0	5 (Max: 150)	0.0005	3.5	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.05$ to $V_{DD}-0.05$	140	100	110	2.5	6.0	5.0	-40 to +125	SSOP5	G-LB

High Speed Ground Sense Operational Amplifiers																
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix
<b>New</b> LMR1701	1	2.7 to 5.5	9.6	1	0.0026	200	$V_{SS}$ to $V_{DD}-0.9$	$V_{SS}+0.1$ to $V_{DD}-0.1$	120	80	86	80	150	-40 to +125	SSOP6	G-LB

Excellent EMI Characteristics High Speed Ground Sense Operational Amplifiers (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)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix
<b>Nano</b> BD77501	1	7 to 15	1.3	4	0.001	7.5	$V_{SS}$ to $V_{DD}-2.0$	$V_{SS}+0.25$ to $V_{DD}-0.25$	75	70	70	10	8	-40 to +85	SSOP5	G
<b>Nano</b> BD77502	2	7 to 15	2.6	4	0.001	7.5	$V_{SS}$ to $V_{DD}-2.0$	$V_{SS}+0.25$ to $V_{DD}-0.25$	75	70	70	10	8	-40 to +85	MSOP8	FVM

Automotive Ultra Low Noise Ground Sense Operational Amplifier																		
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (μV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Input Referred Noise Voltage (nV/√Hz)	Operating Temperature (°C)	Package	Part No. Suffix	Automotive Grade AEC-Q100
<b>New</b> LMR1801Y	1	2.2 to 5.5	0.95	5 (Max: 950)	0.0005	3.5	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.05$ to $V_{DD}-0.05$	140	100	110	2.5	6.0	5	-40 to +125	SSOP5	G-C	YES
<b>New</b> LMR1802Y	1	2.5 to 5.5	1.1	5 (Max: 450)	0.0005	3.5	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.05$ to $V_{DD}-0.05$	140	105	125	1.1	4.4	2.9	-40 to +125	SSOP5	G-C	YES

Automotive High Speed Ground Sense Operational Amplifiers																	
Part No.	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (°C)	Package	Part No. Suffix	Automotive Grade AEC-Q100
<b>New</b> LMR1701Y	1	2.7 to 5.5	9.6	1	0.0026	200	$V_{SS}$ to $V_{DD}-0.9$	$V_{SS}+0.1$ to $V_{DD}-0.1$	120	80	86	80	150	-40 to +125	SSOP6	G-C	YES

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**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
<b>BA2901/BA2901S</b>	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
<b>BA2901Y</b>	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
<b>BA2903/BA2903S</b>	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	F FV
<b>BA2903Y</b>	2	2 to 36	0.6	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	MSOP8	FVM
<b>BA8391</b>	1	2 to 36	0.3	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +85	SOP8	F-LB
<b>LM2901</b>	4	3 to 32	1.2	1	50	16	$V_{EE}$ to $V_{CC}-1.5$	120	1.0	-40 to +125	SOP14 SOP-J14 SSOP-B14	F FJ FV
											TSSOP-B14J	FVJ
<b>LM2903</b>	2	3 to 32	0.6	1	50	16	$V_{EE}$ to $V_{CC}-1.5$	120	1.0	-40 to +125	SOP8 SOP-J8 SSOP-B8	F FJ FV
											TSSOP-B8J	FVJ
											MSOP8	FVM
											TSSOP-B8	FVT
<b>LM339</b>	4	3 to 32	1.2	1	50	16	$V_{EE}$ to $V_{CC}-1.5$	120	1.0	-40 to +85	SOP14 SOP-J14 SSOP-B14	F FJ FV
											TSSOP-B14J	FVJ
<b>LM393</b>	2	3 to 32	0.6	1	50	16	$V_{EE}$ to $V_{CC}-1.5$	120	1.0	-40 to +85	SOP8 SOP-J8	F FJ
											SSOP-B8	FV
											TSSOP-B8J	FVJ
											MSOP8	FVM
											TSSOP-B8	FVT

## Standard

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	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	F-C	YES
											SSOP-B8	FV-C	YES
											MSOP8	FVM-C	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	F-C	YES
											SSOP-B14	FV-C	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	F-M	YES
											SSOP-B8	FV-M	YES
											MSOP8	FVM-M	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	F-M	YES
											SSOP-B14	FV-M	YES

Automotive Excellent EMI Characteristics 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	Automotive Grade AEC-Q100
<b>New</b> BA82903Y	2	2 to 36	0.6	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP8	F-C	YES
			0.8								MSOP8	FVM-C	YES
<b>New</b> BA82901Y	4										SOP14	F-C	YES
											SSOP-B14	FV-C	YES

## High Speed

Push-Pull Comparators												
Part No.	ch	Supply Voltage (V)	Circuit Current (μA)	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
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
											MSOP8	FVM
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 (μA)	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
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 (μA)	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
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
											MSOP8	FVM
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 (μA)	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	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	YES

  

Open-Drain Comparators												
Part No.	ch	Supply Voltage (V)	Circuit Current (μA)	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
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 (μA)	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	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	YES

## Transistor Arrays

### Darlington Transistor Arrays

Open Collectors												
Part No.	Number of bit	Output Withstand Voltage (V)	Output Saturation Voltage (V)	Output Current (mA)	Input Resistance (kΩ)	Input/Output Relation	Input Active Level	Output Current Relation	Circuit Construction	Features	Package	
BA12003DF-Z	7	60	1.46*	500	2.7	Inverting type	H	Sink	Darlington	Built-in surge absorbing diode	SOP-J16A	
BA12004DF-Z	7	60	1.46*	500	10.5	Inverting type	H	Sink	Darlington	Built-in surge absorbing diode	SOP-J16A	

\*Output Current=350mA