

# Operational Amplifiers/ Comparators

Operational Amplifiers/Comparators			
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# Operational Amplifiers

## Standard

Ground Sense Operational Amplifiers																
Part No.	Product Grade	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
BA2904F																SOP8
BA2904FV		2	3 to 36	0.5	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	SSOP-B8
BA2904FVM																MSOP8
BA2904SF																SOP8
BA2904SFV		2	3 to 36	0.5	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +105	SSOP-B8
BA2904SFVM																MSOP8
BA2904YF-LB		2	3 to 36	0.5	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	SOP8
BA2902F																SOP14
BA2902FV		4	3 to 36	0.7	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	SSOP-B14
BA2902SF																SOP14
BA2902SFV		4	3 to 36	0.7	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +105	SSOP-B14
BA2902YF-LB		4	3 to 36	0.7	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	SOP14
BA3404F	-															SOP8
BA3404FJ	-	2	4 to 36	2.0	2.0	70	30	V <sub>EE</sub> to V <sub>CC</sub> -2.0	V <sub>EE</sub> to V <sub>CC</sub> -2.0	100	90	94	1.2	1.2	-40 to +85	SOP-J8
BA3404FVM	-															MSOP8
LM2902F																SOP14
LM2902FJ																SOP-J14
LM2902FV		4	3 to 32	1.0	1.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.3	0.8	-40 to +125	SSOP-B14
LM2902FVJ																TSSOP-B14J
LM2904F																SOP8
LM2904FJ																SOP-J8
LM2904FV		2	3 to 32	0.6	1.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.3	0.8	-40 to +125	SSOP-B8
LM2904FVJ																TSSOP-B8J
LM2904FVM																MSOP8
LM2904FVT	-															TSSOP-B8
LM324F	-															SOP14
LM324FJ	-															SOP-J14
LM324FV	-	4	3 to 32	1.0	1.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> +0.01 to V <sub>CC</sub> -1.5	100	80	100	0.3	0.8	-40 to +85	SSOP-B14
LM324FVJ	-															TSSOP-B14J
LM358F	-															SOP8
LM358FJ	-															SOP-J8
LM358FV	-	2	3 to 32	0.6	1.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> +0.01 to V <sub>CC</sub> -1.5	100	80	100	0.3	0.8	-40 to +85	SSOP-B8
LM358FVJ	-															TSSOP-B8J
LM358FVM	-															MSOP8
LM358FVT	-															TSSOP-B8

Product Grade: -Standard High Grade

Automotive Ground Sense Operational Amplifiers																	
Part No.	Product Grade	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	Automotive Grade AEC-Q100
BA2904YF-C																	YES
BA2904YFV-C		2	3 to 36	0.5	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	SSOP-B8	YES
BA2904YFVM-C																MSOP8	YES
BA2902YF-C																	YES
BA2902YFV-C		4	3 to 36	0.7	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	SSOP-B14	YES
BA2904YF-M																	YES
BA2904YFV-M		2	3 to 36	0.5	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	SSOP-B8	YES
BA2904YFVM-M																MSOP8	YES
BA2902YF-M																	YES
BA2902YFV-M		4	3 to 36	0.7	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	SSOP-B14	YES
BA82904YF-C																	YES
BA82904YFVM-C		2	3 to 36	0.5	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	MSOP8	YES
BA82902YF-C																	YES
BA82902YFJ-C																	YES
BA82902YFV-C		4	3 to 36	0.7	2.0	20	30	V <sub>EE</sub> to V <sub>CC</sub> -1.5	V <sub>EE</sub> to V <sub>CC</sub> -1.5	100	80	100	0.2	0.5	-40 to +125	SSOP-B14	YES
BA82902YFVJ-C																	YES

Product Grade: Automotive Grade

## High Speed

Input-Output Full Swing Operational Amplifiers																
Part No.	Product Grade	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
BU7261G	—	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	SSOP5
BU7261SG	—														-40 to +105	SSOP5
BU7262F	—	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	SOP8
BU7262FVM	—														MSOP8	
BU7262NUX	—															VSON008X2030
BU7262SF	—	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 +105	SOP8
BU7262SFVM	—														MSOP8	
BU7262SNUX	—															VSON008X2030
BU7264F	—	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	SOP14
BU7264FV	—														SSOP-B14	
BU7264SF	—														-40 to +105	SOP14
BU7264SFV	—														SSOP-B14	
BU7291G	—	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	SSOP5
BU7291SG	—														-40 to +105	SSOP5
BU7294F	—	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	SOP14
BU7294FV	—														SSOP-B14	
BU7294SF	—														-40 to +105	SOP14
BU7294SFV	—														SSOP-B14	
BU7295HFV	—	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	HVSOF5
BU7295SHFV	—														-40 to +105	HVSOF5
BU7255HFV	—	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	HVSOF5
BU7255SHFV	—														-40 to +105	HVSOF5
BD7561G	—	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	SSOP5
BD7561SG	—														-40 to +105	SSOP5
BD7562F	—	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	SOP8
BD7562FVM	—														MSOP8	
BD7562SF	—	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 +105	SOP8
BD7562SFVM	—														MSOP8	

Ground Sense Operational Amplifiers																
Part No.	Product Grade	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
BA3472F	—	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
BA3472FV	—														SSOP-B8	
BA3472FJ	—														SOP-J8	
BA3472FVM	—														MSOP8	
BA3472FVT	—														TSSOP-B8	
BA3472YF-LB	—														-40 to +125	SOP8
BA3472RFVM	—	-40 to +105	MSOP8													
BA3474F	—	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
BA3474FV	—														-40 to +85	SSOP-B14
BA3474FVJ	—														-40 to +105	TSSOP-B14J
BA3474RFV	—														-40 to +105	SSOP-B14
BU7461G	—	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	SSOP5
BU7461SG	—														-40 to +105	SSOP5
BU7462F	—	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	SOP8
BU7462FVM	—														MSOP8	
BU7462NUX	—															VSON008X2030
BU7462SF	—	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 +105	SOP8
BU7462SFVM	—														MSOP8	
BU7462SNUX	—															VSON008X2030
BU7464F	—	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	SOP14
BU7464SF	—														-40 to +105	SOP14
BU7465HFV	—	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	HVSOF5
BU7465SHFV	—														-40 to +105	HVSOF5
BU7481G	—	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	SSOP5
BU7481SG	—														-40 to +105	SSOP5
BU7485G	—	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	SSOP5
BU7485SG	—														-40 to +105	SSOP5
BU7486F	—	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	SOP8
BU7486FV	—														SSOP-B8	
BU7486FVM	—														MSOP8	
BU7486SF	—														SOP8	
BU7486SFV	—														-40 to +105	SSOP-B8
BU7486SFVM	—														MSOP8	
BU7487F	—	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	SOP14
BU7487FV	—														SSOP-B14	
BU7487SF	—														-40 to +105	SOP14
BU7487SFV	—														SSOP-B14	
BU7495HFV	—	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	HVSOF5
BU7495SHFV	—														-40 to +105	HVSOF5

Product Grade: —Standard High Grade

## High Speed

### Automotive Ground Sense Operational Amplifiers

Part No.	Product Grade	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	Automotive Grade AEC-Q100
BA3472YF-C	—	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	4.0	-40 to +125	SOP8	YES
BA3472YFV-C																SSOP-B8	YES
BA3472YFVM-C																MSOP8	YES
BA3472WFV-C																SSOP-B8	YES
BA3474WFV-C	—	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	4.0	-40 to +125	SSOP-B14	YES
BA3474YFV-C																SSOP-B14	YES

Product Grade: Automotive Grade

## Low Power Consumption

### Input-Output Full Swing Operational Amplifiers

Part No.	Product Grade	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
BU7205HFV	—	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	HVSOF5
BU7205SHFV	-40 to +105															HVSOF5
BU7241G	—	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	SSOP5
BU7241SG	-40 to +105															SSOP5
BU7242F	—	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	SOP8
BU7242FVM	MSOP8															
BU7242NUX	VSON008X2030															
BU7242SF	SOP8															
BU7242SFVM	—	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 +105	MSOP8
BU7242SNUX	VSON008X2030															
BU7244F	—	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	SOP14
BU7244FV	SSOP-B14															
BU7244SF	SOP14															
BU7244SFV	SSOP-B14															
BU7245HFV	—	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	HVSOF5
BU7245SHFV	-40 to +105															HVSOF5
BU7265G	—	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	SSOP5
BU7265SG	-40 to +105															SSOP5
BU7266F	—	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	SOP8
BU7266FV	SSOP-B8															
BU7266FVM	MSOP8															
BU7266SF	SOP8															
BU7266SFV	—	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 +105	SSOP-B8
BU7266SFVM	MSOP8															
BU7271G	—	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	SSOP5
BU7271SG	-40 to +105															SSOP5
BU7275HFV	—	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	HVSOF5
BU7275SHFV	-40 to +105															HVSOF5
BD12730G	—	2	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
BD12732F	SOP8															
BD12732FJ	SOP-J8															
BD12732FV	SSOP-B8															
BD12732FVJ	TSSOP-B8J															
BD12732FVM	MSOP8															
BD12732FVT	TSSOP-B8															
BD12734F	SOP14															
BD12734FJ	SOP-J14															
BD12734FV	SSOP-B14															
BD12734FVJ	TSSOP-B14J															
BD7541G	—															1
BD7541SG	-40 to +105	SSOP5														
BD7542F	—	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	SOP8
BD7542FVM	MSOP8															
BD7542SF	SOP8															
BD7542SFVM	MSOP8															
LMR931G	—	2	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
LMR932F	SOP8															
LMR932FJ	SOP-J8															
LMR932FV	SSOP-B8															
LMR932FVJ	TSSOP-B8J															
LMR932FVM	MSOP8															
LMR932FVT	TSSOP-B8															
LMR934F	SOP14															
LMR934FJ	SOP-J14															
LMR934FV	SSOP-B14															
LMR934FVJ	TSSOP-B14J															
LMR981G	—	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
LMR982FVM	-40 to +85															MSOP10

Product Grade: —Standard High Grade

Low Power Consumption

Ground Sense Operational Amplifiers																
Part No.	Product Grade	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
BU7411G	—	1	1.6 to 5.5	0.35	1.0	0.001	2.4	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.0024	0.004	-40 to +85	SSOP5
BU7411SG	—														-40 to +105	SSOP5
BU7421G	—	1	1.7 to 5.5	8.5	1.0	0.001	4	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	100	60	80	0.05	0.09	-40 to +85	SSOP5
BU7421SG	—														-40 to +105	SSOP5
BU7441G	—	1	1.7 to 5.5	50	1.0	0.001	6	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.3	0.6	-40 to +85	SSOP5
BU7441SG	—														-40 to +105	SSOP5
BU7442F	—	2	1.7 to 5.5	100	1.0	0.001	6	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.3	0.6	-40 to +85	SOP8
BU7442FVM	—														MSOP8	
BU7442NUX	—														VSON008X2030	
BU7442SF	—	2	1.7 to 5.5	100	1.0	0.001	6	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.3	0.6	-40 to +105	SOP8
BU7442SFVM	—														MSOP8	
BU7442SNUX	—														VSON008X2030	
BU7444F	—	4	1.7 to 5.5	200	1.0	0.001	6	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	95	60	80	0.3	0.6	-40 to +85	SOP14
BU7444SF	—														-40 to +105	SOP14
BU7445HFV	—	1	1.7 to 5.5	40	1.0	0.001	8	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	100	60	80	0.25	0.4	-40 to +85	HVSOF5
BU7445SHFV	—														-40 to +105	HVSOF5
BU7475HFV	—	1	1.7 to 5.5	9	1.0	0.001	7	$V_{SS}$ to $V_{DD}-1.2$	$V_{SS}+0.1$ to $V_{DD}-0.1$	100	60	80	0.05	0.1	-40 to +85	HVSOF5
BU7475SHFV	—														-40 to +105	HVSOF5
BD1321G	—	1	2.7 to 5.5	130	0.1	15	70	$V_{EE}$ to $V_{CC}-0.8$	$V_{EE}+0.08$ to $V_{CC}-0.4$	110	90	90	1.0	3.0	-40 to +85	SSOP5
LMR321G	—	1	2.7 to 5.5	130	0.1	15	70	$V_{EE}$ to $V_{CC}-0.8$	$V_{EE}+0.08$ to $V_{CC}-0.4$	110	90	90	1.0	3.0	-40 to +85	SSOP5
LMR324F	—	4	2.7 to 5.5	410	1.0	15	70	$V_{EE}$ to $V_{CC}-0.8$	$V_{EE}+0.08$ to $V_{CC}-0.4$	110	90	90	1.0	3.0	-40 to +85	SOP14
LMR324FJ	—														SOP-J14	
LMR324FV	—														SSOP-B14	
LMR324FVJ	—														TSSOP-B14J	
LMR341G	—	1	2.7 to 5.5	100	0.25	0.001	24	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.06$ to $V_{DD}-0.06$	103	80	85	1.0	2.0	-40 to +85	SSOP6
LMR342F	—	2	2.7 to 5.5	200	0.25	0.001	24	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.06$ to $V_{DD}-0.06$	103	80	85	1.0	2.0	-40 to +85	SOP8
LMR342FJ	—														SOP-J8	
LMR342FV	—														SSOP-B8	
LMR342FVJ	—														TSSOP-B8J	
LMR342FVM	—														MSOP8	
LMR342FVT	—														TSSOP-B8	
LMR344F	—														4	2.7 to 5.5
LMR344FJ	—	SOP-J14														
LMR344FVJ	—	TSSOP-B14J														
LMR358F	—	2	2.7 to 5.5	210	0.1	15	70	$V_{EE}$ to $V_{CC}-0.8$	$V_{EE}+0.08$ to $V_{CC}-0.4$	110	90	90	1.0	3.0	-40 to +85	SOP8
LMR358FJ	—														SOP-J8	
LMR358FV	—														SSOP-B8	
LMR358FVJ	—														TSSOP-B8J	
LMR358FVM	—														MSOP8	
LMR358FVT	—														TSSOP-B8	
LMR821G	—	1	2.5 to 5.5	280	1.0	30	16	$V_{SS}$ to $V_{DD}-0.9$	$V_{SS}+0.12$ to $V_{DD}-0.1$	100	85	85	2.0	5.0	-40 to +85	SSOP5
LMR822F	—	2	2.5 to 5.5	560	1.0	30	16	$V_{SS}$ to $V_{DD}-0.9$	$V_{SS}+0.12$ to $V_{DD}-0.1$	100	85	85	2.0	5.0	-40 to +85	SOP8
LMR822FJ	—														SOP-J8	
LMR822FV	—														SSOP-B8	
LMR822FVJ	—														TSSOP-B8J	
LMR822FVM	—														MSOP8	
LMR822FVT	—														TSSOP-B8	
LMR824F	—	4	2.5 to 5.5	1,120	1.0	30	16	$V_{SS}$ to $V_{DD}-0.9$	$V_{SS}+0.12$ to $V_{DD}-0.1$	100	85	85	2.0	5.0	-40 to +85	SOP14
LMR824FJ	—														SOP-J14	
LMR824FVJ	—														TSSOP-B14J	
TLR341G	—	1	1.8 to 5.5	70	0.3	0.001	8	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.055$ to $V_{DD}-0.05$	100	90	95	1.2	2.2	-40 to +85	SSOP6
TLR342F	—	2	1.8 to 5.5	150	0.3	0.001	8	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.055$ to $V_{DD}-0.05$	100	85	95	1.0	1.2	-40 to +85	SOP8
TLR342FJ	—														SOP-J8	
TLR342FVJ	—														TSSOP-B8J	
TLR342FVT	—														TSSOP-B8	
TLR344F	—	4	1.8 to 5.5	300	0.3	0.001	8	$V_{SS}$ to $V_{DD}-1.0$	$V_{SS}+0.055$ to $V_{DD}-0.05$	100	90	95	1.2	2.2	-40 to +85	SOP14
TLR344FJ	—														SOP-J14	
TLR344FVJ	—														TSSOP-B14J	

  

Automotive Input-Output Full Swing Operational Amplifiers																	
Part No.	Product Grade	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	Automotive Grade AEC-Q100
BU7241YG-C	—	1	1.8 to 5.5	70	1.0	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	YES
BU7242YFVM-C	—	2	1.8 to 5.5	180	1.0	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	YES
BU7244YFV-C	—	4	1.8 to 5.5	360	1.0	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	YES

Product Grade: —Standard High Grade Automotive Grade

## Low Noise

Output Full Swing Operational Amplifiers																	
Part No.	Product Grade	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Input Referred Noise Voltage ( $\mu$ Vrms)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/ $\mu$ s)	Gain Bandwidth Product (MHz)	Operating Temperature ( $^{\circ}$ C)	Package	
BA4510F	—	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	
BA4510FV	SSOP-B8																
BA4510FVM	MSOP8																
BA4510FVT	TSSOP-B8																
BA2107G	—	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	
BA2115F	—	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	
BA2115FJ	SOP-J8																
BA2115FVM	MSOP8																
Automotive Operational Amplifiers																	
Part No.	Product Grade	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Input Referred Noise Voltage ( $\mu$ Vrms)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/ $\mu$ s)	Gain Bandwidth Product (MHz)	Operating Temperature ( $^{\circ}$ C)	Package	Automotive Grade AEC-Q100
BA4558YF-M	—	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	YES
BA4558YFV-M	SSOP-B8															YES	
BA4558YFVM-M	MSOP8															YES	
BA4560YF-M	—	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	YES
BA4560YFV-M	SSOP-B8															YES	
BA4560YFVM-M	MSOP8															YES	
BA4580YF-M	—	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	YES
BA4580YFVM-M	MSOP8															YES	
BA4584YFV-M	—	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	YES
Dual Supply Voltage Operational Amplifiers																	
Part No.	Product Grade	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Input Referred Noise Voltage ( $\mu$ Vrms)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/ $\mu$ s)	Gain Bandwidth Product (MHz)	Operating Temperature ( $^{\circ}$ C)	Package	
BA4558F	—	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	SOP8	
BA4558FJ	SOP-J8																
BA4558FV	SSOP-B8																
BA4558FVM	MSOP8																
BA4558FVT	TSSOP-B8																
BA4558RF	—	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	
BA4558RFJ	SOP-J8																
BA4558RFV	SSOP-B8																
BA4558RFVM	MSOP8																
BA4558RFVT	TSSOP-B8																
BA4560F	—	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	SOP8	
BA4560FJ	SOP-J8																
BA4560FV	SSOP-B8																
BA4560FVM	MSOP8																
BA4560FVT	TSSOP-B8																
BA4560RF	—	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	
BA4560RFJ	SOP-J8																
BA4560RFV	SSOP-B8																
BA4560RFVM	MSOP8																
BA4560RFVT	TSSOP-B8																
BA4564RFV	—	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	
BA15218F	—	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	
BA14741F	—	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	
BA14741FJ	SOP-J14																
BA15532F	—	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	
BA4580RF	—	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	
BA4580RFJ	SOP-J8																
BA4580RFVM	MSOP8																
BA4580RFVT	TSSOP-B8																
BA4584FV	—	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	
BA4584RF	—	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	
BA4584RFV	SSOP-B14																
LM4559F	—	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	
LM4559FJ	SOP-J8																
LM4559FV	SSOP-B8																
LM4559FVT	TSSOP-B8																
LM4559FVM	MSOP8																
LM4559FVJ	TSSOP-B8J																
LM4565F	—	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	
LM4565FJ	SOP-J8																
LM4565FV	SSOP-B8																
LM4565FVT	TSSOP-B8																
LM4565FVM	MSOP8																
LM4565FVJ	TSSOP-B8J																

Product Grade: —Standard High Grade Automotive Grade



Ultra Low Noise

Ground Sense Operational Amplifier																
Part No.	Product Grade	ch	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage ( $\mu$ V)	Input Bias Current (nA)	Output Current (mA)	Input Voltage (V)	Output Voltage (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/ $\mu$ s)	Gain Bandwidth Product (MHz)	Operating Temperature ( $^{\circ}$ C)	Package
<b>New</b> LMR1801G-LB		1	2.2 to 5.5	0.95	5	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	-40 to +125	SSOP5
<b>New</b> LMR1801HFV-LB		1	2.2 to 5.5	0.95	5	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	-40 to +125	HVSO5
LMR1802G-LB		1	2.5 to 5.5	1.1	5	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	-40 to +125	SSOP5

Product Grade: High Grade

Low Offset Voltage

Dual Supply Voltage Operational Amplifier																
Part No.	Product Grade	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/ $\mu$ s)	Gain Bandwidth Product (MHz)	Operating Temperature ( $^{\circ}$ C)	Package
BA4564WV		4	$\pm 4$ to $\pm 15$	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
Input-Output Full Swing Operational Amplifier																
BD5291G		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
<b>New</b> BD5291FVE		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	VSO5

Product Grade: -Standard High Grade

# Comparators

Standard

Open-Collector Comparators																						
Part No.	Product Grade	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 ( $\mu$ s)	Operating Temperature ( $^{\circ}$ C)	Package										
BA2901F		4	2 to 36	0.8	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP14										
BA2901FV	SSOP-B14																					
BA2901SF	SOP14																					
BA2901SFV	SSOP-B14																					
BA2901YF-LB		4	2 to 36	0.8	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP14										
BA2903F		2	2 to 36	0.6	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP8										
BA2903FV	SSOP-B8																					
BA2903FVM	MSOP8																					
BA2903SF	SOP8																					
BA2903SFV		2	2 to 36	0.6	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +105	SSOP-B8										
BA2903SFVM												MSOP8										
BA2903YF-LB		2	2 to 36	0.6	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP8										
BA8391G		1	2 to 36	0.3	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +85	SSOP5										
LM2901F		4	3 to 32	1.2	1	50	16	$V_{EE}$ to $V_{CC}-1.5$	120	1.0	-40 to +125	SOP14										
LM2901FJ	SOP-J14																					
LM2901FV	SSOP-B14																					
LM2901FVJ	TSSOP-B14J																					
LM2903F		2	3 to 32	0.6	1	50	16	$V_{EE}$ to $V_{CC}-1.5$	120	1.0	-40 to +125	SOP8										
LM2903FJ	SOP-J8																					
LM2903FV	SSOP-B8																					
LM2903FVJ	TSSOP-B8J																					
LM2903FVM	MSOP8																					
LM2903FVT	TSSOP-B8																					
LM339F												4	3 to 32	1.2	1	50	16	$V_{EE}$ to $V_{CC}-1.5$	120	1.0	-40 to +85	SOP14
LM339FJ	SOP-J14																					
LM339FV	SSOP-B14																					
LM339FVJ	TSSOP-B14J																					
LM393F		2	3 to 32	0.6	1	50	16	$V_{EE}$ to $V_{CC}-1.5$	120	1.0	-40 to +85	SOP8										
LM393FJ	SOP-J8																					
LM393FV	SSOP-B8																					
LM393FVJ	TSSOP-B8J																					
LM393FVM	MSOP8																					
LM393FVT	TSSOP-B8																					

Automotive Open-Collector Comparators													
Part No.	Product Grade	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 ( $\mu$ s)	Operating Temperature ( $^{\circ}$ C)	Package	Automotive Grade AEC-Q100
BA2903YF-C		2	2 to 36	0.6	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP8	YES
BA2903YFV-C	SSOP-B8											YES	
BA2903YFVM-C	MSOP8											YES	
BA2901YF-C		4	2 to 36	0.8	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP14	YES
BA2901YFV-C	SSOP-B14											YES	
BA2903YF-M		2	2 to 36	0.6	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP8	YES
BA2903YFV-M	SSOP-B8											YES	
BA2903YFVM-M	MSOP8											YES	
BA2901YF-M		4	2 to 36	0.8	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP14	YES
BA2901YFV-M	SSOP-B14											YES	

Product Grade: -Standard High Grade Automotive Grade

## Standard

### Automotive Excellent EMI Characteristics Open-Collector Comparators

Part No.	Product Grade	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	Automotive Grade AEC-Q100
<b>New</b> BA82903YF-C	Automotive Grade	2	2 to 36	0.6	2	50	16	$V_{EE}$ to $V_{CC}-1.5$	100	1.3	-40 to +125	SOP8	YES
<b>New</b> BA82903YFVM-C												MSOP8	YES
<b>New</b> BA82901YF-C		4		SOP14								YES	
<b>New</b> BA82901YFV-C				SSOP-B14								YES	

Product Grade: Automotive Grade

## High Speed

### Push-Pull Comparators

Part No.	Product Grade	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
BU7251G	Standard	1	1.8 to 5.5	15	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	0.55	-40 to +85	SSOP5
BU7251SG												-40 to +105
BU7252F	Standard	2	1.8 to 5.5	35	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	0.55	-40 to +85	SOP8
BU7252FVM												MSOP8
BU7252SF	Standard	2	1.8 to 5.5	35	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	0.55	-40 to +105	SOP8
BU7252SFVM												MSOP8
BU5265HFV	High Grade	1	1.8 to 5.5	22	1	0.001	3.5	$V_{SS}$ to $V_{DD}$	90	0.5	-40 to +85	HVSOF5
BU5265SHFV												-40 to +105

### Open-Drain Comparators

BU7250G	Standard	1	1.8 to 5.5	15	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	0.75	-40 to +85	SSOP5
BU7250SG												-40 to +105
BU7253F	Standard	2	1.8 to 5.5	35	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	0.75	-40 to +85	SOP8
BU7253SF												-40 to +105

Product Grade: —Standard High Grade

## Low Power Consumption

### Push-Pull Comparators

Part No.	Product Grade	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
BU7231G	Standard	1	1.8 to 5.5	5	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	1.7	-40 to +85	SSOP5
BU7231SG												-40 to +105
BU7232F	Standard	2	1.8 to 5.5	10	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	1.7	-40 to +85	SOP8
BU7232FVM												MSOP8
BU7232SF	Standard	2	1.8 to 5.5	10	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	1.7	-40 to +105	SOP8
BU7232SFVM												MSOP8
BU5255HFV	High Grade	1	1.8 to 5.5	6.5	1	0.001	3.5	$V_{SS}$ to $V_{DD}$	90	1.6	-40 to +85	HVSOF5
BU5255SHFV												-40 to +105

### Automotive Push-Pull Comparator

<b>New</b> BU7232YFVM-C	Automotive Grade	2	1.8 to 5.5	10	1	0.001	7	$V_{SS}$ to $V_{DD}$	100	1.7	-40 to +125	MSOP8	YES
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### Open-Drain Comparators

Part No.	Product Grade	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
BU7230G	Standard	1	1.8 to 5.5	5	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	1.8	-40 to +85	SSOP5
BU7230SG												-40 to +105
BU7233F	Standard	2	1.8 to 5.5	10	1	0.001	6	$V_{SS}$ to $V_{DD}$	90	1.8	-40 to +85	SOP8
BU7233SF												-40 to +105

### Automotive Open-Drain Comparator

BU7233YF-C	Automotive Grade	2	1.8 to 5.5	10	1	0.001	7	$V_{SS}$ to $V_{DD}$	100	1.8	-40 to +125	SOP8	YES
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Product Grade: —Standard High Grade Automotive Grade

## 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