



# OPERATIONAL AMPLIFIERS

## HIGH SPEED SINGLE

Type	Description	Temperature range (C)	Package
TSH10ID	High Speed 140MHz Amplifier Low Noise	- 40 to 105	SO8
TSH10IN	High Speed 140MHz Amplifier Low Noise	- 40 to 105	DIP8
TSH11ID	High Speed 120MHz Amplifier Mos Input	- 40 to 105	SO8
TSH11IN	High Speed 120MHz Amplifier Mos Input	- 40 to 105	DIP8
* TSH150CD	High Speed 150MHz Amplifier Bipolar Input	0 to 70	SO8
* TSH150CN	High Speed 150MHz Amplifier Bipolar Input	0 to 70	DIP8
TSH150ID	High Speed 150MHz Amplifier Bipolar Input	- 40 to 105	SO8
TSH150IN	High Speed 150MHz Amplifier Bipolar Input	- 40 to 105	DIP8
* TSH151CD	High Speed 150MHz Amplifier Mos Input	0 to 70	SO8
* TSH151CN	High Speed 150MHz Amplifier Mos Input	0 to 70	DIP8
TSH151ID	High Speed 150MHz Amplifier Mos Input	- 40 to 105	SO8
TSH151IN	High Speed 150MHz Amplifier Mos Input	- 40 to 105	DIP8
TSH31ID	High Speed 280MHz Amplifier Mos Input	- 40 to 105	SO8
TSH31IN	High Speed 280MHz Amplifier Mos Input	- 40 to 105	DIP8
TSH321ID	High Speed 300MHz Amplifier Mos Input	- 40 to 105	SO8
TSH321IN	High Speed 300MHz Amplifier Mos Input	- 40 to 105	DIP8

## HIGH SPEED DUAL

Type	Description	Temperature range (C)	Package
TSH22ID	25MHz Amplifier - Bipolar Input Single Supply 3 to 30V	- 40 to 125	SO8
TSH22IN	25MHz Amplifier - Bipolar Input Single Supply 3 to 30V	- 40 to 125	DIP8

## HIGH SPEED QUAD/TRIPLE

Type	Description	Temperature range (C)	Package
TSH24ID	2.5MHz Amplifier - Bipolar Input Single Supply 3 to 30V	- 40 to 125	SO14
TSH24IN	2.5MHz Amplifier - Bipolar Input Single Supply 3 to 30V	- 40 to 125	DIP14
TSH94ID	150MHz Amplifier - Bipolar Input with Standby Mode	- 40 to 125	SO16
TSH94IN	150MHz Amplifier - Bipolar Input with Standby Mode	- 40 to 125	DIP16
TSH93ID	150MHz Triple Amplifier - Bipolar Input with Standby Mode	- 40 to 125	SO14
TSH93IN	150MHz Triple Amplifier - Bipolar Input with Standby Mode	- 40 to 125	DIP14
TSH95ID	150MHz Quad Amplifier with Dual Standby	- 40 to 125	SO16
TSH95IN	150MHz Quad Amplifier with Dual Standby	- 40 to 125	DIP16

# OPERATIONAL AMPLIFIERS



ALL OUR CMOS OPERATIONAL AMPLIFIERS ARE LOW CONSUMPTION, HIGH SPEED AND ULTRA-STABLE BEHAVIOUR AND ARE DESIGNED TO OPERATE WITH SINGLE OR DUAL SUPPLIES.

## CMOS-SINGLE

Type	Description	Temperature range (C)	Package
TS271ACD	Programmable Supply Current - Low Offset Voltage Amplifier	0 to 70	SO8
* TS271ACDT	Programmable Supply Current - Low Offset Voltage Amplifier	0 to 70	SO8 Tape
TS271ACN	Programmable Supply Current - Low Offset Voltage Amplifier	0 to 70	DIP8
TS271AID	Programmable Supply Current - Low Offset Voltage Amplifier	- 40 to 125	SO8
* TS271AIDT	Programmable Supply Current - Low Offset Voltage Amplifier	- 40 to 125	SO8 Tape
TS271AIN	Programmable Supply Current - Low Offset Voltage Amplifier	- 40 to 125	DIP8
* TS271BCD	Programmable Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO8
* TS271BCDT	Programmable Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO8 Tape
* TS271BCN	Programmable Supply Current - Very Low Offset Voltage Amplifier	0 to 70	DIP8
* TS271BID	Programmable Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	SO8
* TS271BIDT	Programmable Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	SO8 Tape
* TS271BIN	Programmable Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	DIP8
TS271CD	Programmable Supply Current - Low Cost Amplifier	0 to 70	SO8
TS271CDT	Programmable Supply Current - Low Cost Amplifier	0 to 70	SO8 Tape
TS271CN	Programmable Supply Current - Low Cost Amplifier	0 to 70	DIP8
TS271ID	Programmable Supply Current - Low Cost Amplifier	- 40 to 125	SO8
* TS271IDT	Programmable Supply Current - Low Cost Amplifier	- 40 to 125	SO8 Tape
TS271IN	Programmable Supply Current - Low Cost Amplifier	- 40 to 125	DIP8

## CMOS-DUAL

Type	Description	Temperature range (C)	Package
TS27L2ACD	Low Supply Current - Low Offset Voltage Amplifier	0 to 70	SO8
* TS27L2ACDT	Low Supply Current - Low Offset Voltage Amplifier	0 to 70	SO8 Tape
TS27L2ACN	Low Supply Current - Low Offset Voltage Amplifier	0 to 70	DIP8
TS27L2AID	Low Supply Current - Low Offset Voltage Amplifier	- 40 to 125	SO8
* TS27L2AIDT	Low Supply Current - Low Offset Voltage Amplifier	- 40 to 125	SO8 Tape
TS27L2AIN	Low Supply Current - Low Offset Voltage Amplifier	- 40 to 125	DIP8
* TS27L2BCD	Low Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO8
* TS27L2BCDT	Low Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO8 Tape
* TS27L2BCN	Low Supply Current - Very Low Offset Voltage Amplifier	0 to 70	DIP8
* TS27L2BID	Low Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	SO8
* TS27L2BIDT	Low Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	SO8 Tape
* TS27L2BIN	Low Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	DIP8
TS27L2CD	Low Supply Current - Low Cost Amplifier	0 to 70	SO8
TS27L2CDT	Low Supply Current - Low Cost Amplifier	0 to 70	SO8 Tape
TS27L2CN	Low Supply Current - Low Cost Amplifier	0 to 70	DIP8
TS27L2ID	Low Supply Current - Low Cost Amplifier	- 40 to 125	SO8
* TS27L2IDT	Low Supply Current - Low Cost Amplifier	- 40 to 125	SO8 Tape
TS27L2IN	Low Supply Current - Low Cost Amplifier	- 40 to 125	DIP8
TS27M2ACD	Medium Supply Current - Low Offset Voltage Amplifier	0 to 70	SO8
* TS27M2ACDT	Medium Supply Current - Low Offset Voltage Amplifier	0 to 70	SO8 Tape
TS27M2ACN	Medium Supply Current - Low Offset Voltage Amplifier	0 to 70	DIP8
TS27M2AID	Medium Supply Current - Low Offset Voltage Amplifier	- 40 to 125	SO8
* TS27M2AIDT	Medium Supply Current - Low Offset Voltage Amplifier	- 40 to 125	SO8 Tape
TS27M2AIN	Medium Supply Current - Low Offset Voltage Amplifier	- 40 to 125	DIP8
* TS27M2BCD	Medium Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO8
* TS27M2BCDT	Medium Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO8 Tape

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# OPERATIONAL AMPLIFIERS

## CMOS-DUAL (cont'd)

Type	Description	Temperature range (C)	Package
* TS27M2BCN	Medium Supply Current - Very Low Offset Voltage Amplifier	0 to 70	DIP8
* TS27M2BID	Medium Supply Current - Very Low Offset Voltage Amplifier	-40 to 125	SO8
* TS27M2BIDT	Medium Supply Current - Very Low Offset Voltage Amplifier	-40 to 125	SO8 Tape
* TS27M2BIN	Medium Supply Current - Very Low Offset Voltage Amplifier	-40 to 125	DIP8
TS27M2CD	Medium Supply Current - Low Cost Amplifier	0 to 70	SO8
TS27M2CDT	Medium Supply Current - Low Cost Amplifier	0 to 70	SO8 Tape
TS27M2CN	Medium Supply Current - Low Cost Amplifier	0 to 70	DIP8
TS27M2ID	Medium Supply Current - Low Cost Amplifier	-40 to 125	SO8
* TS27M2IDT	Medium Supply Current - Low Cost Amplifier	-40 to 125	SO8 Tape
TS27M2IN	Medium Supply Current - Low Cost Amplifier	-40 to 125	DIP8
TS272ACD	High Speed - Low Offset Voltage Amplifier	0 to 70	SO8
* TS272ACDT	High Speed - Low Offset Voltage Amplifier	0 to 70	SO8 Tape
TS272ACN	High Speed - Low Offset Voltage Amplifier	0 to 70	DIP8
TS272AID	High Speed - Low Offset Voltage Amplifier	-40 to 125	SO8
TS272AIDT	High Speed - Low Offset Voltage Amplifier	-40 to 125	SO8 Tape
TS272AIN	High Speed - Low Offset Voltage Amplifier	-40 to 125	DIP8
* TS272BCD	High Speed - Very Low Offset Voltage Amplifier	0 to 70	SO8
* TS272BCDT	High Speed - Very Low Offset Voltage Amplifier	0 to 70	SO8 Tape
* TS272BCN	High Speed - Very Low Offset Voltage Amplifier	0 to 70	DIP8
* TS272BID	High Speed - Very Low Offset Voltage Amplifier	-40 to 125	SO8
* TS272BIDT	High Speed - Very Low Offset Voltage Amplifier	-40 to 125	SO8 Tape
* TS272BIN	High Speed - Very Low Offset Voltage Amplifier	-40 to 125	DIP8
TS272CD	High Speed - Low Cost Amplifier	0 to 70	SO8
TS272CDT	High Speed - Low Cost Amplifier	0 to 70	SO8 Tape
TS272CN	High Speed - Low Cost Amplifier	0 to 70	DIP8
TS272ID	High Speed - Low Cost Amplifier	-40 to 125	SO8
* TS272IDT	High Speed - Low Cost Amplifier	-40 to 125	SO8 Tape
TS272IN	High Speed - Low Cost Amplifier	-40 to 125	DIP8
TS902ID	Rail to Rail Dual CMOS Amplifier	-40 to 125	SO14
TS902IN	Rail to Rail Dual CMOS Amplifier	-40 to 125	DIP14
TS912AID	Rail to Rail Dual CMOS Amplifier	-40 to 125	SO8
TS912AIDT	Rail to Rail Dual CMOS Amplifier	-40 to 125	SO8 Tape
TS912AIN	Rail to Rail Dual CMOS Amplifier	-40 to 125	DIP8
TS912BID	Rail to Rail Dual CMOS Amplifier	-40 to 125	SO8
TS912BIDT	Rail to Rail Dual CMOS Amplifier	-40 to 125	SO8 Tape
TS912BIN	Rail to Rail Dual CMOS Amplifier	-40 to 125	DIP8
TS912ID	Rail to Rail Dual CMOS Amplifier	-40 to 125	SO8
TS912IN	Rail to Rail Dual CMOS Amplifier	-40 to 125	DIP8
TS3V902AID	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	SO14
TS3V902AIN	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	DIP14
TS3V902ID	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	SO14
TS3V902IN	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	DIP14
TS3V912ID	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	SO8
TS3V912IN	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	DIP8
TS3V912AID	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	SO8
TS3V912AIN	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	DIP8
TS3V912BID	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	SO8
TS3V912BIN	3V Rail to Rail Dual CMOS Amplifier	-40 to 125	DIP8

## CMOS-QUAD

Type	Description	Temperature range (C)	Package
TS27L4ACD	Low Supply Current - Low Offset Voltage Amplifier	0 to 70	SO14
* TS27L4ACDT	Low Supply Current - Low Offset Voltage Amplifier	0 to 70	SO14 Tape
TS27L4ACN	Low Supply Current - Low Offset Voltage Amplifier	0 to 70	DIP14
TS27L4AID	Low Supply Current - Low Offset Voltage Amplifier	-40 to 125	SO14
* TS27L4AIDT	Low Supply Current - Low Offset Voltage Amplifier	-40 to 125	SO14 Tape

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## OPERATIONAL AMPLIFIERS



## CMOS-QUAD (cont'd)

Type	Description	Temperature range (C)	Package
TS27L4AIN	Low Supply Current - Low Offset Voltage Amplifier	- 40 to 125	DIP14
* TS27L4BCD	Low Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO14
* TS27L4BCDT	Low Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO14 Tape
* TS27L4BCN	Low Supply Current - Very Low Offset Voltage Amplifier	0 to 70	DIP14
* TS27L4BID	Low Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	SO14
* TS27L4BIDT	Low Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	SO14 Tape
* TS27L4BIN	Low Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	DIP14
TS27L4CD	Low Supply Current - Low Cost Amplifier	0 to 70	SO14
TS27L4CDT	Low Supply Current - Low Cost Amplifier	0 to 70	SO14 Tape
TS27L4CN	Low Supply Current - Low Cost Amplifier	0 to 70	DIP14
TS27L4AID	Low Supply Current - Low Cost Amplifier	- 40 to 125	SO14
* TS27L4IDT	Low Supply Current - Low Cost Amplifier	- 40 to 125	SO14 Tape
TS27L4IN	Low Supply Current - Low Cost Amplifier	- 40 to 125	DIP14
TS27M4ACD	Medium Supply Current - Low Offset Voltage Amplifier	0 to 70	SO14
* TS27M4ACDT	Medium Supply Current - Low Offset Voltage Amplifier	0 to 70	SO14 Tape
TS27M4ACN	Medium Supply Current - Low Offset Voltage Amplifier	0 to 70	DIP14
TS27M4AID	Medium Supply Current - Low Offset Voltage Amplifier	- 40 to 125	SO14
* TS27M4AIDT	Medium Supply Current - Low Offset Voltage Amplifier	- 40 to 125	SO14 Tape
TS27M4AIN	Medium Supply Current - Low Offset Voltage Amplifier	- 40 to 125	DIP14
* TS27M4BCD	Medium Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO14
* TS27M4BCDT	Medium Supply Current - Very Low Offset Voltage Amplifier	0 to 70	SO14 Tape
* TS27M4BCN	Medium Supply Current - Very Low Offset Voltage Amplifier	0 to 70	DIP14
* TS27M4BID	Medium Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	SO14
* TS27M4BIDT	Medium Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	SO14 Tape
* TS27M4BIN	Medium Supply Current - Very Low Offset Voltage Amplifier	- 40 to 125	DIP14
TS27M4CD	Medium Supply Current - Low Cost Amplifier	0 to 70	SO14
TS27M4CDT	Medium Supply Current - Low Cost Amplifier	0 to 70	SO14 Tape
TS27M4CN	Medium Supply Current - Low Cost Amplifier	0 to 70	DIP14
TS27M4ID	Medium Supply Current - Low Cost Amplifier	- 40 to 125	SO14
* TS27M4IDT	Medium Supply Current - Low Cost Amplifier	- 40 to 125	SO14 Tape
TS27M4IN	Medium Supply Current - Low Cost Amplifier	- 40 to 125	DIP14
TS274ACD	High Speed - Low Offset Voltage Amplifier	0 to 70	SO14
* TS274ACDT	High Speed - Low Offset Voltage Amplifier	0 to 70	SO14 Tape
TS274ACN	High Speed - Low Offset Voltage Amplifier	0 to 70	DIP14
TS274AID	High Speed - Low Offset Voltage Amplifier	- 40 to 125	SO14
* TS274AIDT	High Speed - Low Offset Voltage Amplifier	- 40 to 125	SO14 Tape
TS274AIN	High Speed - Low Offset Voltage Amplifier	- 40 to 125	DIP14
* TS274BCD	High Speed - Very Low Offset Voltage Amplifier	0 to 70	SO14
* TS274BCDT	High Speed - Very Low Offset Voltage Amplifier	0 to 70	SO14 Tape
* TS274BCN	High Speed - Very Low Offset Voltage Amplifier	0 to 70	DIP14
* TS274BID	High Speed - Very Low Offset Voltage Amplifier	- 40 to 125	SO14
* TS274BIDT	High Speed - Very Low Offset Voltage Amplifier	- 40 to 125	SO14 Tape
* TS274BIN	High Speed - Very Low Offset Voltage Amplifier	- 40 to 125	DIP14
TS274CD	High Speed - Low Cost Amplifier	0 to 70	SO14
TS274CDT	High Speed - Low Cost Amplifier	0 to 70	SO14 Tape
TS274CN	High Speed - Low Cost Amplifier	0 to 70	DIP14
TS274ID	High Speed - Low Cost Amplifier	- 40 to 125	SO14
* TS274IDT	High Speed - Low Cost Amplifier	- 40 to 125	SO14 Tape
TS274IN	High Speed - Low Cost Amplifier	- 40 to 125	DIP14
TS904ID	Rail to Rail Quad CMOS Amplifier	- 40 to 125	SO14
TS904IN	Rail to Rail Quad CMOS Amplifier	- 40 to 125	DIP14
TS914AID	3V Rail to Rail Quad CMOS Amplifier	- 40 to 125	SO14
TS914AIN	3V Rail to Rail Quad CMOS Amplifier	- 40 to 125	DIP14
TS3V904ID	3V Rail to Rail Quad CMOS Amplifier	- 40 to 125	SO14
TS3V904IN	3V Rail to Rail Quad CMOS Amplifier	- 40 to 125	DIP14
TS914ID	Rail to Rail Quad CMOS Amplifier	- 40 to 125	SO14
TS914IN	Rail to Rail Quad CMOS Amplifier	- 40 to 125	DIP14
TS3V914ID	3V Rail to Rail Quad CMOS Amplifier	- 40 to 125	SO14
TS3V914AID	3V Rail to Rail Quad CMOS Amplifier	- 40 to 125	SO14
TS3V914IN	3V Rail to Rail Quad CMOS Amplifier	- 40 to 125	DIP14
TS3V914AIN	3V Rail to Rail Quad CMOS Amplifier	- 40 to 125	DIP14

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# OPERATIONAL AMPLIFIERS

## J-FET-SINGLE

Type	Description	Temperature range (°C)	Package
* LF251D	Wide Bandwidth Amplifier	-40 to 105	SO8
* LF251DT	Wide Bandwidth Amplifier	-40 to 105	SO8 Tape
* LF251N	Wide Bandwidth Amplifier	-40 to 105	DIP8
* LF255D	High Performance - Low Supply Current Amplifier	-40 to 105	SO8
* LF255DT	High Performance - Low Supply Current Amplifier	-40 to 105	SO8 Tape
* LF255N	High Performance - Low Supply Current Amplifier	-40 to 105	DIP8
* LF256D	High Performance - Wide Band Amplifier	-40 to 105	SO8
* LF256DT	High Performance - Wide Band Amplifier	-40 to 105	SO8 Tape
* LF256N	High Performance - Wide Band Amplifier	-40 to 105	DIP8
* LF257D	High Performance - Wide Band Decompensated Amplifier	-40 to 105	SO8
* LF257DT	High Performance - Wide Band Decompensated Amplifier	-40 to 105	SO8 Tape
* LF257N	High Performance - Wide Band Decompensated Amplifier	-40 to 105	DIP8
LF351D	Wide Bandwidth Amplifier	0 to 70	SO8
LF351DT	Wide Bandwidth Amplifier	0 to 70	SO8 Tape
LF351N	Wide Bandwidth Amplifier	0 to 70	DIP8
LF355D	High Performance - Low Supply Current Amplifier	0 to 70	SO8
* LF355DT	High Performance - Low Supply Current Amplifier	0 to 70	SO8 Tape
LF355N	High Performance - Low Supply Current Amplifier	0 to 70	DIP8
LF356D	High Performance - Wide Band Amplifier	0 to 70	SO8
* LF356DT	High Performance - Wide Band Amplifier	0 to 70	SO8 Tape
LF356N	High Performance - Wide Band Amplifier	0 to 70	DIP8
LF357D	High Performance - Wide Band Decompensated Amplifier	0 to 70	SO8
LF357DT	High Performance - Wide Band Decompensated Amplifier	0 to 70	SO8 Tape
LF357N	High Performance - Wide Band Decompensated Amplifier	0 to 70	DIP8
TL061ACD	Low Power - Low Input Offset Voltage Amplifier	0 to 70	SO8
* TL061ACDT	Low Power - Low Input Offset Voltage Amplifier	0 to 70	SO8 Tape
TL061ACN	Low Power - Low Input Offset Voltage Amplifier	0 to 70	DIP8
* TL061AID	Low Power - Low Input Offset Voltage Amplifier	-40 to 105	SO8
* TL061AIDT	Low Power - Low Input Offset Voltage Amplifier	-40 to 105	SO8 Tape
* TL061AIN	Low Power - Low Input Offset Voltage Amplifier	-40 to 105	DIP8
TL061CD	Low Power Amplifier	0 to 70	SO8
TL061CDT	Low Power Amplifier	0 to 70	SO8 Tape
TL061CN	Low Power Amplifier	0 to 70	DIP8
TL061ID	Low Power Amplifier	-40 to 105	SO8
* TL061IDT	Low Power Amplifier	-40 to 105	SO8 Tape
TL061IN	Low Power Amplifier	-40 to 105	DIP8
TL071ACD	Low Noise - Low Input Offset Voltage Amplifier	0 to 70	SO8
* TL071ACDT	Low Noise - Low Input Offset Voltage Amplifier	0 to 70	SO8 Tape
TL071ACN	Low Noise - Low Input Offset Voltage Amplifier	0 to 70	DIP8
* TL071AID	Low Noise - Low Input Offset Voltage Amplifier	-40 to 105	SO8
* TL071AIDT	Low Noise - Low Input Offset Voltage Amplifier	-40 to 105	SO8 Tape
* TL071AIN	Low Noise - Low Input Offset Voltage Amplifier	-40 to 105	DIP8
TL071CD	Low Noise Amplifier	0 to 70	SO8
TL071CDT	Low Noise Amplifier	0 to 70	SO8 Tape
TL071CN	Low Noise Amplifier	0 to 70	DIP8
TL071ID	Low Noise Amplifier	-40 to 105	SO8
* TL071IDT	Low Noise Amplifier	-40 to 105	SO8 Tape
TL071IN	Low Noise Amplifier	-40 to 105	DIP8
* TL081ACD	General Purpose - Low Input Offset Voltage Amplifier	0 to 70	SO8
* TL081ACDT	General Purpose - Low Input Offset Voltage Amplifier	0 to 70	SO8 Tape
TL081ACN	General Purpose - Low Input Offset Voltage Amplifier	0 to 70	DIP8
* TL081AID	General Purpose - Low Input Offset Voltage Amplifier	-40 to 105	SO8
* TL081AIDT	General Purpose - Low Input Offset Voltage Amplifier	-40 to 105	SO8 Tape
* TL081AIN	General Purpose - Low Input Offset Voltage Amplifier	-40 to 105	DIP8
TL081CD	General Purpose Amplifier	0 to 70	SO8
TL081CDT	General Purpose Amplifier	0 to 70	SO8 Tape
TL081CN	General Purpose Amplifier	0 to 70	DIP8
TL081ID	General Purpose Amplifier	-40 to 105	SO8
* TL081IDT	General Purpose Amplifier	-40 to 105	SO8 Tape
TL081IN	General Purpose Amplifier	-40 to 105	DIP8

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## OPERATIONAL AMPLIFIERS



## J-FET-DUAL

Type	Description	Temperature range (°C)	Package
* LF253D	Wide Bandwidth Amplifier	- 40 to 105	SO8
* LF253DT	Wide Bandwidth Amplifier	- 40 to 105	SO8 Tape
* LF253N	Wide Bandwidth Amplifier	- 40 to 105	DIP8
LF353D	Wide Bandwidth Amplifier	0 to 70	SO8
LF353DT	Wide Bandwidth Amplifier	0 to 70	SO8 Tape
LF353N	Wide Bandwidth Amplifier	0 to 70	DIP8
TL062ACD	Low Power - Low Input Offset Voltage Amplifier	0 to 70	SO8
* TL062ACDT	Low Power - Low Input Offset Voltage Amplifier	0 to 70	SO8 Tape
TL062ACN	Low Power - Low Input Offset Voltage Amplifier	0 to 70	DIP8
* TL062AID	Low Power - Low Input Offset Voltage Amplifier	- 40 to 105	SO8
* TL062AIDT	Low Power - Low Input Offset Voltage Amplifier	- 40 to 105	SO8 Tape
* TL062AIN	Low Power - Low Input Offset Voltage Amplifier	- 40 to 105	DIP8
TL062CD	Low Power Amplifier	0 to 70	SO8
TL062CDT	Low Power Amplifier	0 to 70	SO8 Tape
TL062CN	Low Power Amplifier	0 to 70	DIP8
TL062ID	Low Power Amplifier	- 40 to 105	SO8
* TL062IDT	Low Power Amplifier	- 40 to 105	SO8 Tape
TL062IN	Low Power Amplifier	- 40 to 105	DIP8
TL072ACD	Low Noise - Low Input Offset Voltage Amplifier	0 to 70	SO8
* TL072ACDT	Low Noise - Low Input Offset Voltage Amplifier	0 to 70	SO8 Tape
TL072ACN	Low Noise - Low Input Offset Voltage Amplifier	0 to 70	DIP8
* TL072AID	Low Noise - Low Input Offset Voltage Amplifier	- 40 to 105	SO8
* TL072AIDT	Low Noise - Low Input Offset Voltage Amplifier	- 40 to 105	SO8 Tape
* TL072AIN	Low Noise - Low Input Offset Voltage Amplifier	- 40 to 105	DIP8
TL072CD	Low Noise Amplifier	0 to 70	SO8
TL072CDT	Low Noise Amplifier	0 to 70	SO8 Tape
TL072CN	Low Noise Amplifier	0 to 70	DIP8
TL072ID	Low Noise Amplifier	- 40 to 105	SO8
* TL072IDT	Low Noise Amplifier	- 40 to 105	SO8 Tape
TL072IN	Low Noise Amplifier	- 40 to 105	DIP8
TL082ACD	General Purpose - Low Input Offset Voltage Amplifier	0 to 70	SO8
* TL082ACDT	General Purpose - Low Input Offset Voltage Amplifier	0 to 70	SO8 Tape
TL082ACN	General Purpose - Low Input Offset Voltage Amplifier	0 to 70	DIP8
* TL082AID	General Purpose - Low Input Offset Voltage Amplifier	- 40 to 105	SO8
* TL082AIDT	General Purpose - Low Input Offset Voltage Amplifier	- 40 to 105	SO8 Tape
* TL082AIN	General Purpose - Low Input Offset Voltage Amplifier	- 40 to 105	DIP8
TL082CD	General Purpose Amplifier	0 to 70	SO8
TL082CDT	General Purpose Amplifier	0 to 70	SO8 Tape
TL082CN	General Purpose Amplifier	0 to 70	DIP8
TL082ID	General Purpose Amplifier	- 40 to 105	SO8
* TL082IDT	General Purpose Amplifier	- 40 to 105	SO8
TL082IN	General Purpose Amplifier	- 40 to 105	DIP8

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# OPERATIONAL AMPLIFIERS

## J-FET-QUAD

Type	Description	Temperature range (°C)	Package
TL064ACD	Low Power - Low Input Offset Voltage Amplifier	0 to 70	SO14
*TL064ACDT	Low Power - Low Input Offset Voltage Amplifier	0 to 70	SO14 Tape
TL064ACN	Low Power - Low Input Offset Voltage Amplifier	0 to 70	DIP14
*TL064AID	Low Power - Low Input Offset Voltage Amplifier	-40 to 105	SO14
*TL064AIDT	Low Power - Low Input Offset Voltage Amplifier	-40 to 105	SO14 Tape
*TL064AIN	Low Power - Low Input Offset Voltage Amplifier	-40 to 105	DIP14
TL064CD	Low Power Amplifier	0 to 70	SO14
TL064CDT	Low Power Amplifier	0 to 70	SO14 Tape
TL064CN	Low Power Amplifier	0 to 70	DIP14
TL064ID	Low Power Amplifier	-40 to 105	SO14
*TL064IDT	Low Power Amplifier	-40 to 105	SO14 Tape
TL064IN	Low Power Amplifier	-40 to 105	DIP14
TL074ACD	Low Noise - Low Input Offset Voltage Amplifier	0 to 70	SO14
*TL074ACDT	Low Noise - Low Input Offset Voltage Amplifier	0 to 70	SO14 Tape
TL074ACN	Low Noise - Low Input Offset Voltage Amplifier	0 to 70	DIP14
*TL074AID	Low Noise - Low Input Offset Voltage Amplifier	-40 to 105	SO14
*TL072AIDT	Low Noise - Low Input Offset Voltage Amplifier	-40 to 105	SO14 Tape
*TL074AIN	Low Noise - Low Input Offset Voltage Amplifier	-40 to 105	DIP14
TL074CD	Low Noise Amplifier	0 to 70	SO14
TL074CDT	Low Noise Amplifier	0 to 70	SO14 Tape
TL074CN	Low Noise Amplifier	0 to 70	DIP14
TL074ID	Low Noise Amplifier	-40 to 105	SO14
*TL074IDT	Low Noise Amplifier	-40 to 105	SO14 Tape
TL074IN	Low Noise Amplifier	-40 to 105	DIP14
TL084ACD	General Purpose - Low Input Offset Voltage Amplifier	0 to 70	SO14
*TL084ACDT	General Purpose - Low Input Offset Voltage Amplifier	0 to 70	SO14 Tape
TL084ACN	General Purpose - Low Input Offset Voltage Amplifier	0 to 70	DIP14
*TL084AID	General Purpose - Low Input Offset Voltage Amplifier	-40 to 105	SO14
*TL084AIDT	General Purpose - Low Input Offset Voltage Amplifier	-40 to 105	SO14 Tape
*TL084AIN	General Purpose - Low Input Offset Voltage Amplifier	-40 to 105	DIP14
TL084CD	General Purpose Amplifier	0 to 70	SO14
TL084CDT	General Purpose Amplifier	0 to 70	SO14 Tape
TL084CN	General Purpose Amplifier	0 to 70	DIP14
TL084ID	General Purpose Amplifier	-40 to 105	SO14
*TL084IDT	General Purpose Amplifier	-40 to 105	SO14 Tape
TL084IN	General Purpose Amplifier	-40 to 105	DIP14

\* On request only - Contact division

# OPERATIONAL AMPLIFIERS



## BIPOLAR-SINGLE

Type	Description	Temperature range (°C)	Package
* LM101AD	Low Offset - External Frequency Compensation Amplifier	- 55 to 125	SO8
* LM101ADT	Low Offset - External Frequency Compensation Amplifier	- 55 to 125	SO8 Tape
LM201AD	Low Offset - External Frequency Compensation Amplifier	- 40 to 105	SO8
* LM201ADT	Low Offset - External Frequency Compensation Amplifier	- 40 to 105	SO8 Tape
LM201AN	Low Offset - External Frequency Compensation Amplifier	- 40 to 105	DIP8
LM301AD	Low Offset - External Frequency Compensation Amplifier	0 to 70	SO8
LM301ADT	Low Offset - External Frequency Compensation Amplifier	0 to 70	SO8 Tape
LM301AN	Low Offset - External Frequency Compensation Amplifier	0 to 70	DIP8
MC33171D	Low Power - Single Supply Amplifier	- 40 to 105	SO8
MC33171DT	Low Power - Single Supply Amplifier	0 to 70	SO8 Tape
MC33171N	Low Power - Single Supply Amplifier	- 40 to 105	DIP8
* TDA7910N	Power 500 mA Output Stage Amplifier	- 40 to 105	DIP16
TDB7910N	Power - 500 mA Output Stage Amplifier	0 to 70	DIP16
UA748CD	Precision - Low Offset Amplifier	0 to 70	SO8
* UA748CDT	Precision - Low Offset Amplifier	0 to 70	SO8 Tape
UA748CN	Precision - Low Offset Amplifier	0 to 70	DIP8
UA748ID	Precision - Low Offset Amplifier	- 40 to 105	SO8
* UA748IDT	Precision - Low Offset Amplifier	- 40 to 105	SO8 Tape
UA748IN	Precision - Low Offset Amplifier	- 40 to 105	DIP8
UA776CD	Programmable - High Input Impedance Amplifier	0 to 70	SO8
* UA776CDT	Programmable - High Input Impedance Amplifier	0 to 70	SO8 Tape
UA776CN	Programmable - High Input Impedance Amplifier	0 to 70	DIP8
UA776ID	Programmable - High Input Impedance Amplifier	- 40 to 105	SO8
* UA776IDT	Programmable - High Input Impedance Amplifier	- 40 to 105	SO8 Tape
UA776IN	Programmable - High Input Impedance Amplifier	- 40 to 105	DIP8

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# OPERATIONAL AMPLIFIERS

## BIPOLAR-DUAL

Type	Description	Temperature range (C)	Package
LM258D	Low Power - Single Power Supply Amplifier	- 40 to 105	SO8
* LM258DT	Low Power - Single Power Supply Amplifier	- 40 to 105	SO8 Tape
LM258N	Low Power - Single Power Supply Amplifier	- 40 to 105	DIP8
LM2904D	Low Power - Single Power Supply Amplifier - <b>FOR AUTOMOTIVE APPL.</b>	- 40 to 105	SO8
LM2904DT	Low Power - Single Power Supply Amplifier - <b>FOR AUTOMOTIVE APPL.</b>	- 40 to 105	SO8 Tape
LM2904N	Low Power - Single Power Supply Amplifier - <b>FOR AUTOMOTIVE APPL.</b>	- 40 to 105	DIP8
LM358AD	Low Power - Single Power Supply - Low Input Offset Voltage Amplifier	0 to 70	SO8
* LM358ADT	Low Power - Single Power Supply - Low Input Offset Voltage Amplifier	0 to 70	SO8 Tape
LM358AN	Low Power - Single Power Supply - Low Input Offset Voltage Amplifier	0 to 70	DIP8
LM358D	Low Power - Single Power Supply Amplifier	0 to 70	SO8
LM358DT	Low Power - Single Power Supply Amplifier	0 to 70	SO8 Tape
LM358N	Low Power - Single Power Supply Amplifier	0 to 70	DIP8
LM833D	Low Noise Amplifier	- 40 to 105	SO8
LM833DT	Low Noise Amplifier	- 40 to 105	SO8 Tape
LM833N	Low Noise Amplifier	- 40 to 105	DIP8
* LS204IN	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	- 40 to 105	DIP8
LS204ID	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	- 40 to 105	SO8
LS204CN	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	0 to 70	DIP8
LS204CD	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	0 to 70	SO8
LS204CDT	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	0 to 70	SO8 Tape
MC1458D	General Purpose - Internal Frequency Compensation Amplifier	0 to 70	SO8
MC1458DT	General Purpose - Internal Frequency Compensation Amplifier	0 to 70	SO8 Tape
MC1458ID	General Purpose - Internal Frequency Compensation Amplifier	- 40 to 105	SO8
* MC1458IDT	General Purpose - Internal Frequency Compensation Amplifier	- 40 to 105	SO8 Tape
MC1458IN	General Purpose - Internal Frequency Compensation Amplifier	- 40 to 105	DIP8
MC1458N	General Purpose - Internal Frequency Compensation Amplifier	0 to 70	DIP8
* MC1558N	General Purpose - Internal Frequency Compensation Amplifier	- 55 to 125	DIP8
MC33078D	Low Noise Amplifier	- 40 to 105	SO8
MC33078DT	Low Noise Amplifier	- 40 to 105	SO8 Tape
MC33078N	Low Noise Amplifier	- 40 to 105	DIP8
MC33172D	Low Power - Single Supply Amplifier	- 40 to 105	SO8
MC33172DT	Low Power - Single Supply Amplifier	- 40 to 105	SO8 Tape
MC33172N	Low Power - Single Supply Amplifier	- 40 to 105	DIP8
MC4558CD	Wideband - Low Power Amplifier	0 to 70	SO8
MC4558CDT	Wideband - Low Power Amplifier	0 to 70	SO8 Tape
MC4558CN	Wideband - Low Power Amplifier	0 to 70	DIP8
* MC4558ID	Wideband - Low Power Amplifier	- 40 to 105	SO8
* MC4558IDT	Wideband - Low Power Amplifier	- 40 to 105	SO8 Tape
* MC4558IN	Wideband - Low Power Amplifier	- 40 to 105	DIP8
<u>TDA2320</u>	Preamplifier for Infrared Remote Control Systems Amplifier	0 to 70	DIP8
<u>TDA2320A</u>	Stereo Preamplifier - <b>FOR AUDIO APPLICATIONS</b>	0 to 70	DIP8
TEB1033D	Low Distorsion & Noise - High Channel Separation Ampl. - <b>FOR TELEC. APPL.</b>	0 to 70	SO8
TEB1033DT	Low Distorsion & Noise - High Channel Separation Ampl. - <b>FOR TELEC. APPL.</b>	0 to 70	SO8 Tape
TEB1033N	Low Distorsion & Noise - High Channel Separation Ampl. - <b>FOR TELEC. APPL.</b>	0 to 70	DIP8
TEF1033D	Low Distorsion & Noise - High Channel Separation Ampl. - <b>FOR TELEC. APPL.</b>	- 40 to 105	SO8
* TEF1033DT	Low Distorsion & Noise - High Channel Separation Ampl. - <b>FOR TELEC. APPL.</b>	- 40 to 105	SO8 Tape
* TEF1033N	Low Distorsion & Noise - High Channel Separation Ampl. - <b>FOR TELEC. APPL.</b>	- 40 to 105	DIP8
TS512ID	High Speed Precision	- 40 to 125	SO8
TS512IDT	High Speed Precision	- 40 to 125	SO8 Tape
TS512IN	High Speed Precision	- 40 to 125	DIP8
TS512AID	High Speed Precision ( $V_{io}$ max = 500 $\mu$ V)	- 40 to 125	SO8
TS512AIDT	High Speed Precision ( $V_{io}$ max = 500 $\mu$ V)	- 40 to 125	SO8 Tape
TS512AIN	High Speed Precision ( $V_{io}$ max = 500 $\mu$ V)	- 40 to 125	DIP8
TS522ID	Precision Low Noise	- 40 to 125	SO8
TS522IDT	Precision Low Noise	- 40 to 125	SO8 Tape
TS522IN	Precision Low Noise	- 40 to 125	DIP8

\* On request only - Contact division

## OPERATIONAL AMPLIFIERS



## BIPOLAR-QUAD

Type	Description	Temperature range (C)	Package
* LM124D	General Purpose - Single Power Supply Amplifier	- 55 to 125	SO14
* LM124DT	General Purpose - Single Power Supply Amplifier	- 55 to 125	SO14 Tape
LM124N	General Purpose - Single Power Supply Amplifier	- 55 to 125	DIP14
LM148D	Quad 741 - Low Supply Current Drain Amplifier	- 55 to 125	SO14
* LM148DT	Quad 741 - Low Supply Current Drain Amplifier	- 55 to 125	SO14 Tape
* LM148N	Quad 741 - Low Supply Current Drain Amplifier	- 55 to 125	DIP14
* LM224AD	General Purpose - Single Power Supply - Low Input Offset Voltage Amplifier	- 40 to 105	SO14
* LM224ADT	General Purpose - Single Power Supply - Low Input Offset Voltage Amplifier	- 40 to 105	SO14 Tape
LM224AN	General Purpose - Single Power Supply - Low Input Offset Voltage Amplifier	- 40 to 105	DIP14
LM224D	General Purpose - Single Power Supply Amplifier	- 40 to 105	SO14
LM224DT	General Purpose - Single Power Supply Amplifier	- 40 to 105	SO14 Tape
LM224N	General Purpose - Single Power Supply Amplifier	- 40 to 105	DIP14
LM246D	Programmable - Wide Power Supply Range Amplifier	- 40 to 105	SO16
* LM246DT	Programmable - Wide Power Supply Range Amplifier	- 40 to 105	SO16 Tape
LM246N	Programmable - Wide Power Supply Range Amplifier	- 40 to 105	DIP16
LM248D	Quad 741 - Low Supply Current Amplifier	- 40 to 105	SO14
* LM248DT	Quad 741 - Low Supply Current Amplifier	- 40 to 105	SO14 Tape
LM248N	Quad 741 - Low Supply Current Amplifier	- 40 to 105	DIP14
LM2902D	Low Power - Single Power Supply Amplifier - <b>FOR AUTOMOTIVE APPL.</b>	- 40 to 105	SO14
LM2902DT	Low Power - Single Power Supply Amplifier - <b>FOR AUTOMOTIVE APPL.</b>	- 40 to 105	SO14 Tape
LM2902N	Low Power - Single Power Supply Amplifier - <b>FOR AUTOMOTIVE APPL.</b>	- 40 to 105	DIP14
LM324AD	General Purpose - Single Power Supply - Low Input Offset Voltage Amplifier	0 to 70	SO14
* LM324ADT	General Purpose - Single Power Supply - Low Input Offset Voltage Amplifier	0 to 70	SO14 Tape
LM324AN	General Purpose - Single Power Supply - Low Input Offset Voltage Amplifier	0 to 70	DIP14
LM324D	General Purpose - Single Power Supply Amplifier	0 to 70	SO14
LM324DT	General Purpose - Single Power Supply Amplifier	0 to 70	SO14 Tape
LM324N	General Purpose - Single Power Supply Amplifier	0 to 70	DIP14
LM346D	Programmable - Wide Power Supply Range Amplifier	0 to 70	SO16
* LM346DT	Programmable - Wide Power Supply Range Amplifier	0 to 70	SO16 Tape
LM346N	Programmable - Wide Power Supply Range Amplifier	0 to 70	DIP16
LM348D	Quad 741 - Low Supply Current Amplifier	0 to 70	SO14
LM348DT	Quad 741 - Low Supply Current Amplifier	0 to 70	SO14 Tape
LM348N	Quad 741 - Low Supply Current Amplifier	0 to 70	DIP14
* LS404IN	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	- 40 to 105	DIP14
* LS404ID	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	- 40 to 105	SO14
LS404CN	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	0 to 70	DIP14
LS404CD	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	0 to 70	SO14
LS404CDT	High Performance Amplifier - <b>FOR TELECOM APPLICATIONS</b>	0 to 70	SO14 Tape
MC3303D	Single Power Supply - Class AB Output Stage Amplifier	- 40 to 105	SO14
* MC3303DT	Single Power Supply - Class AB Output Stage Amplifier	- 40 to 105	SO14 Tape
MC3303N	Single Power Supply - Class AB Output Stage Amplifier	- 40 to 105	DIP14
MC33079D	Low Noise Amplifier	- 40 to 105	SO14
MC33079DT	Low Noise Amplifier	- 40 to 105	SO14 Tape
MC33079N	Low Noise Amplifier	- 40 to 105	DIP14
MC33174D	Low Power - Single Supply amplifier	- 40 to 105	SO14
MC33174DT	Low Power - Single Supply amplifier	- 40 to 105	SO14 Tape
MC33174N	Low Power - Single Supply amplifier	- 40 to 105	DIP14
MC3403D	Single Power Supply - Class AB Output Stage Amplifier	0 to 70	SO14
MC3403DT	Single Power Supply - Class AB Output Stage Amplifier	0 to 70	SO14 Tape
MC3403N	Single Power Supply - Class AB Output Stage Amplifier	0 to 70	DIP14
TS514ID	Precision High Speed	- 40 to 125	SO14
TS514IDT	Precision High Speed	- 40 to 125	SO14 Tape
TS514IN	Precision High Speed	- 40 to 125	DIP14
TS514AID	500 $\mu$ V Precision - High Speed	- 40 to 125	SO14
TS514AIDT	500 $\mu$ V Precision - High Speed	- 40 to 125	SO14 Tape
TS514AIN	500 $\mu$ V Precision - High Speed	- 40 to 125	DIP14
TS524ID	Precision Low Noise	- 40 to 125	SO14
TS524IN	Precision Low Noise	- 40 to 125	DIP14

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## OPERATIONAL AMPLIFIERS

### BICMOS-DUAL

Type	Description	Temperature range (°C)	Package
TS922ID	Rail to rail high output current dual op-amp	– 40 to +125	SO8
TS922IDT	Rail to rail high output current dual op-amp	– 40 to +125	SO8 Tape
TS922IN	Rail to rail high output current dual op-amp	– 40 to +125	DIP8
TS922IP	Rail to rail high output current dual op-amp	– 40 to +125	TSSOP8
TS922IPT	Rail to rail high output current dual op-amp	– 40 to +125	TSSOP8 Tape
TS942ID	Rail to rail micropower dual op-amp	– 40 to + 85	SO8
TS942IDT	Rail to rail micropower dual op-amp	– 40 to + 85	SO8 Tape
TS942IN	Rail to rail micropower dual op-amp	– 40 to + 85	DIP8

### BICMOS-QUAD

Type	Description	Temperature range (°C)	Package
TS924ID	Rail to rail high output current dual op-amp	– 40 to +125	SO14
TS924IDT	Rail to rail high output current dual op-amp	– 40 to +125	SO14 Tape
TS924IN	Rail to rail high output current dual op-amp	– 40 to +125	DIP14
TS924IP	Rail to rail high output current dual op-amp	– 40 to +125	TSSOP14
TS924IPT	Rail to rail high output current dual op-amp	– 40 to +125	TSSOP14 Tape
TS925ID	Rail to rail high output current dual op-amp	– 40 to + 125	SO16
TS925IDT	Rail to rail high output current dual op-amp	– 40 to + 125	SO16 Tape
TS925IN	Rail to rail high output current dual op-amp	– 40 to + 125	DIP16
TS925IP	Rail to rail high output current dual op-amp	– 40 to + 125	TSSOP16
TS925IPT	Rail to rail high output current dual op-amp	– 40 to + 125	TSSOP16 Tape