

AD647/AD642/AD644—SPECIFICATIONS

($V_{CM} = 0\text{ V}$, $V_S = \pm 15\text{ V}$ @ $T_A = +25^\circ\text{C}$ unless otherwise noted)

Parameter	AD642			AD644			AD647			Units
	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
OPEN-LOOP GAIN $V_{OUT} = \pm 10\text{ V}$, $R_L = 2\text{ k}\Omega$ J Grade K, L, S Grades	100			30			100			V/mV V/mV
OUTPUT CHARACTERISTICS $R_L = 2\text{ k}\Omega$, $T_A = T_{MIN}$ to T_{MAX} $R_L = 10\text{ k}\Omega$, $T_A = T_{MIN}$ to T_{MAX} Short Circuit Current	± 10	± 12		± 10	± 12		± 10	± 12		V V mA
FREQUENCY RESPONSE Unity Gain, Small Signal Full Power Response Slew Rate, Unity Gain Total Harmonic Distortion		1.0 50		2.0 200				1.0 50		MHz kHz V/ μ s %
INPUT OFFSET VOLTAGE Initial Offset J Grade K Grade L Grade S Grade Input Offset Voltage, T_{MIN} to T_{MAX} J Grade K Grade L Grade S Grade			2.0 1.0 0.5 1.0		2.0 1.0 0.5 1.0			1.0 0.5 0.25 0.5		mV mV mV mV mV mV mV mV
INPUT BIAS CURRENT² Either Input J Grade K, L, S Grades Input Offset Current J Grade K, L, S Grades		10 10	75 35	10 10	75 35		10 10	75 35		pA pA pA pA
MATCHING CHARACTERISTICS³ Input Offset Voltage J Grade K Grade L Grade S Grade Input Bias Current J, S Grades K, L Grades Crosstalk			1.0 0.5 0.25 0.5		1.0 0.5 0.25 0.5			1.0 0.5 0.25 0.5		mV mV mV mV pA pA pA dB
INPUT IMPEDANCE Differential Common Mode		$10^{12} 6$		$10^{12} 6$			$10^{12} 6$			ΩpF ΩpF
INPUT VOLTAGE RANGE Differential ⁴ Common Mode Common Mode Rejection J Grade K, L, S Grades	± 10	± 20 ± 12		± 10	± 20 ± 12		± 10	± 20 ± 12		V V dB dB
POWER SUPPLY Rated Performance Operating Quiescent Current	± 5	± 15 ± 18 2.8		± 5	± 15 ± 18 4.5		± 5	± 15 ± 18 2.8		V V mA
VOLTAGE NOISE 0.1 Hz to 10 Hz J Grade K, L, S Grades 10 Hz 100 Hz 1 kHz 10 kHz		2.0 2.0 70 45 30 25		2.0 2.0 35 22 18 16			2.0 2.0 70 45 30 25			μ V p-p μ V p-p nV/ $\sqrt{\text{Hz}}$ nV/ $\sqrt{\text{Hz}}$ nV/ $\sqrt{\text{Hz}}$ nV/ $\sqrt{\text{Hz}}$

Specifications subject to change without notice.