

EL2232D Die

Dual 60 MHz Current Feedback Amplifiers

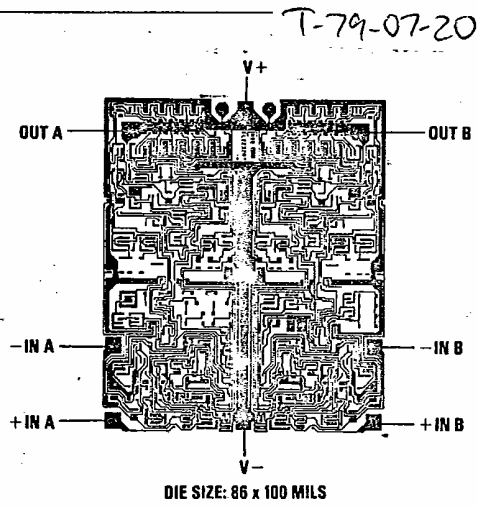
EL2232D

Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$)

V_S	Supply Voltage	$\pm 18\text{V}$ or $+36\text{V}$
V_{IN}	Input Voltage	$\pm 15\text{V}$ or V_S
ΔV_{IN}	Differential Input Voltage	$\pm 6\text{V}$
I_{IN}	Input Current (Pins 2 or 3)	$\pm 10\text{ mA}$
I_{OP}	Peak Output Current	Short Circuit Protected
	Output Short Circuit Duration (Note 1)	Continuous
T_A	Operating Temperature Range	-55°C to 125°C
T_J	Maximum Junction Temperature	175°C

Important Note:
For AC electrical characteristics, refer to the typical electrical table and performance curves in the package data sheet. These characteristics are guaranteed but not tested in die form. Unless otherwise noted, all tests are pulsed tests, therefore $T_J = T_C = T_A$.

Test Level	Test Procedure
I	100% production tested in wafer form. See remarks under Electrical Testing in the General Die section.



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Open Loop Characteristics $V_S = \pm 15\text{V}$, $T_A = 25^\circ\text{C}$, $R_L = 500\Omega$, unless otherwise specified

Parameter	Description	Conditions	Min	Typ	Max	Test Level	Units
V_{OS}	Input Offset Voltage	$V_S = \pm 5\text{V}, \pm 15\text{V}$		2	7	I	mV
$+I_{IN}$	+ Input Current	$V_S = \pm 5\text{V}, \pm 15\text{V}$		1.2	3	I	μA
$-I_{IN}$	- Input Current	$V_S = \pm 5\text{V}, \pm 15\text{V}$		5	20	I	μA
$+R_{IN}$	+ Input Resistance		2	20		I	$\text{M}\Omega$
CMRR (Note 2)	Common Mode Rejection Ratio	$V_S = \pm 5\text{V}, \pm 15\text{V}$	56	63		I	dB
-ICMR (Note 2)	- Input Common Mode Rejection			0.25	0.75	I	$\mu\text{A}/\text{V}$
PSRR (Note 3)	Power Supply Rejection Ratio		66	80		I	dB
+IPSR (Note 3)	+ Input Current Power Supply Rejection			0.03	0.06	I	$\mu\text{A}/\text{V}$
-IPSR (Note 2)	- Input Current Power Supply Rejection			0.06	0.2	I	$\mu\text{A}/\text{V}$
R_{OL} (Note 4)	Transimpedance ($\Delta V_{OUT}/\Delta(-I_{IN})$)	$V_S = \pm 5\text{V}, \pm 15\text{V}$	1.2	4		I	$\text{M}\Omega$
V_O	Output Voltage Swing	$V_S = \pm 15\text{V}$	11.5	12.5		I	V
		$V_S = \pm 5\text{V}$	2	2.5		I	V
I_{OUT}	Output Current	$V_S = 15\text{V}$	23	30		I	mA
I_S	Quiescent Supply Current			9.5	13	I	mA

Note 1: Junction temperature must be below absolute maximum rating when an output is shorted.
 Note 2: $V_{CM} = \pm 10\text{V}$ for $V_S = \pm 15\text{V}$. For $V_S = \pm 5\text{V}$, $V_{CM} = \pm 2\text{V}$.
 Note 3: V_{OS} is measured at $V_S = \pm 4.5\text{V}$ and at $V_S = \pm 18\text{V}$. Both supplies are changed simultaneously.
 Note 4: $V_{OUT} = \pm 10\text{V}$ for $V_S = \pm 15\text{V}$, $V_{OUT} = \pm 2\text{V}$ for $V_S = \pm 5\text{V}$, $R_L = 500\Omega$.

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