

# EL2242D Die

Dual Fast Single-Supply Unity Gain Stable Operational Amplifier

T-79-10

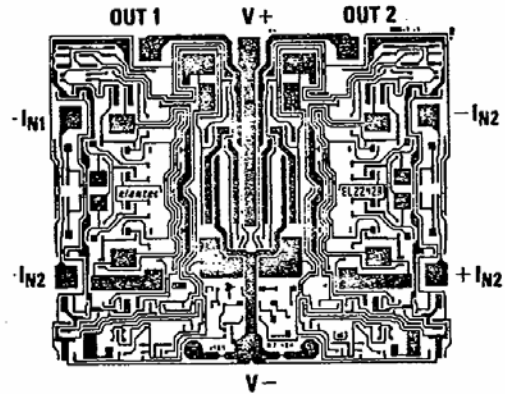
## Absolute Maximum Ratings ( $T_A = 25^\circ\text{C}$ )

$V_S$	Voltage between $V+$ and $V-$	35V
$\Delta V_{IN}$	Differential Input Voltage	36V
	Input Voltage	$V+ \text{ to } V-$
	Input Current	5 mA
$I_{OP}$	Output Current, Peak	50 mA
$I_{OC}$	Output Current, Continuous	30 mA
$T_J$	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.



DIE SIZE: 86 x 72 MILS

## DC Electrical Characteristics $V_S = \pm 15\text{V}$ , $R_L = 1 \text{ k}\Omega$ , $T_A = 25^\circ\text{C}$ , unless otherwise specified

Parameter	Description	Min	Typ	Max	Test Level	Units
$V_{OS}$	Offset Voltage		2	5	I	mV
$I_B$	Bias Current		0.5	0.7	I	$\mu\text{A}$
$I_{OS}$	Offset Current		0.01	0.1	I	$\mu\text{A}$
$V_{CM+}$	Positive Common Mode Range	$\pm 12$	13.3		I	V
$V_{CM-}$	Negative Common Mode Range	-15	-15.3		I	V
$A_{VOL}$	Large Signal Voltage Gain (Note 1)	150	300		I	V/mV
CMRR	Common-Mode Rejection Ratio (Note 2)	80			I	dB
$V_O$	Output Voltage Swing (Note 4)	$\pm 12$	$\pm 13.5$		I	V
		$\pm 14.98$	$\pm 15$		I	V
$I_O$	Output Current (Note 5)	$\pm 25$	$\pm 50$		I	mA
$I_S$	Supply Current (Both Amplifiers)		8.2	10	I	mA
PSRR	Power Supply Rejection Ratio (Note 3)	76	95		I	dB

Note 1:  $V_O = \pm 10\text{V}$ .

Note 2: Two tests are performed.  $V_{CM} = 0\text{V}$  to  $+12\text{V}$  and  $V_{CM} = 0\text{V}$  to  $-12\text{V}$ .

Note 3: Two tests are performed.  $V+ = +3\text{V}$ , and  $V-$  is changed from  $-2\text{V}$  to  $-27\text{V}$ .  $V- = -2\text{V}$ , and  $V+$  is changed from  $+3\text{V}$  to  $+28\text{V}$ .

Note 4:  $R_L$  is connected to  $V-$ .

Note 5: The inputs are over driven by  $\pm 15\text{V}$ ;  $R_L = 100\Omega$ .