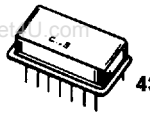
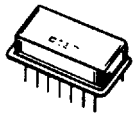


FET Input Models
C-438 & M-438
C-238 & M-238



FET Input Models
C-418 & M-418

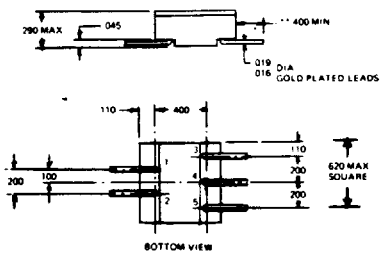
Conditions	Min.	Typ.	Max.	Conditions	Min.	Typ.	Max.
$R_L = 500\Omega$	±10 V				±10 V		
$R_L = 500\Omega$	±20 mA				±5 mA		
$R_L = 500\Omega$	90 db	100 db		Rated Load 2K	25,000	100,000	
Small Signal	10 MHz	12 MHz		Small Signal	0.5 MHz	1.0 MHz	
Large Signal	800 KHz	1,000 KHz		Large Signal	8.0 KHz	10.0 KHz	
Fig. 1A	50 V/ μsec.	80 V/ μsec.			0.5 V/ μsec.	1.0 V/ μsec.	
Fig. 2A	2 μsec.	1 μsec.			—	—	
		800 pF			—	—	
	±10 V		±15 V		±10 V		±15 V
Between Inputs			30 V	Between Inputs			30 V
@ 10V	86 db	96 db				80 db	
		10^{11} || 4 pf			10^{12} || 3 pf		
Either Input		10^{11} || 4 pf		Either Input	10^{12} || 3 pf		
Flicker .01 Hz — 2 Hz		6 μV					
		0.2 pA		Broad Band		3 μV	
Broad Band 2 Hz — 10 KHz		3 μV		2 Hz to 10 KHz		3 pA	
		3 pA					
			300 μV/V				300 μV/V
	±10 V	±15 V	±22 V		±10 V	±15 V	±18 V
		±9 mA				±2 mA	±3.5 mA
		±30 mA					±8.0 mA
	−55°C		+125°C		−55°C		+125°C
	−55°C		+125°C		−55°C		+125°C

Conditions	A	B	C	Conditions	A	B	C
25°C	1	1	2	−25°C	1	1	2
−55°C to +125°C	10	25	50	−55°C to +125°C	10	25	50
+25°C	—	—	—	+25°C	100 fA	100 fA	100 fA
+25°C	5 pA*	5 pA*	10 pA*	+25°C	1000 fA*	1000 fA*	1000 fA*

MECHANICAL

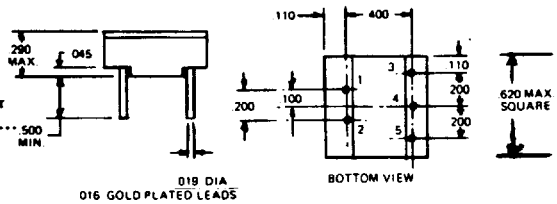
Models C-007 & C-008

PIN 1: INVERTING INPUT
PIN 2: NON INVERTING INPUT
PIN 3: (+) 15 V DC
PIN 4: (−) 15 V DC
PIN 5: OUTPUT



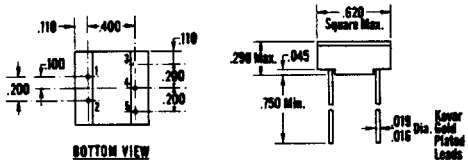
Models C-107 & C-108

PIN 1: INVERTING INPUT
PIN 2: NON INVERTING INPUT
PIN 3: (+) 15 V DC
PIN 4: (−) 15 V DC
PIN 5: OUTPUT



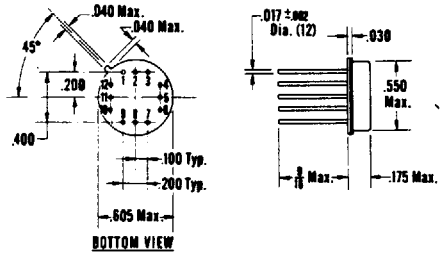
Model C-018 & C-118

PIN 1: INVERTING INPUT
PIN 2: NON INVERTING INPUT
PIN 3: (+) 15 V DC
PIN 4: (−) 15 V DC
PIN 5: OUTPUT



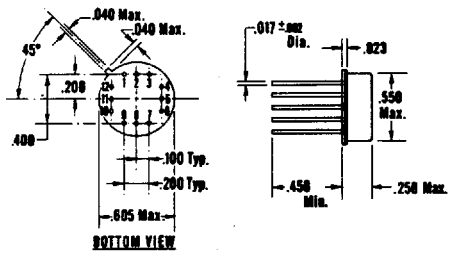
Model C-218 & C-228

PIN 1: NON INVERTING INPUT
PIN 2: INVERTING INPUT
PIN 3: N.C.
PIN 4: (+) 15 V DC
PIN 5: TRIM
PIN 6: (−) 15 V DC
PIN 7: CASE GROUND
PIN 8: OUTPUT
PIN 9: TRIM
(Other Pins - No Connection)



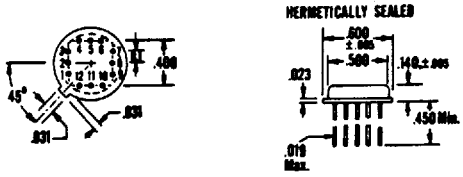
Model C-238

PIN 1: (+) INPUT
PIN 2: (−) INPUT
PIN 3: N.C.
PIN 4: (+) 15 V DC
PIN 5: (−) 15 V DC
PIN 6: CASE GROUND
PIN 7: OUTPUT
PIN 8: DO NOT USE
PIN 9: DO NOT USE
PIN 10: N.C.
PIN 11: N.C.
PIN 12: N.C.



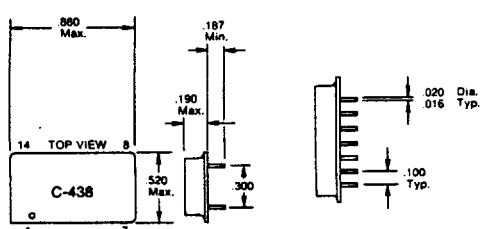
Models C-247 & C-248

PIN 1: NON INVERTING INPUT
PIN 2: INVERTING INPUT
PIN 4: (+) 15 V DC
PIN 5: COMMON
PIN 6: (−)15 V DC
PIN 7: CASE
PIN 8: OUTPUT
(Other Pins - No Connection)



Models C-418 & C-438

PIN 1: N.C.
PIN 2: N.C.
PIN 3: N.C.
PIN 4: (−) INPUT
PIN 5: (+) INPUT
PIN 6: (−) 15 V DC
PIN 7: N.C.
PIN 8: CASE
PIN 9: N.C.
PIN 10: OUTPUT
PIN 11: (+) 15 V DC
PIN 12: N.C.
PIN 13: N.C.
PIN 14: N.C.



SCHEMATIC

FIG. 1

SLEW RATE MEASUREMENT CIRCUIT

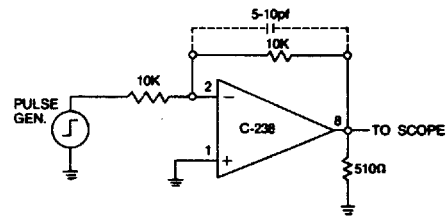


FIG. 2

SETTLING TIME MEASUREMENT CIRCUIT

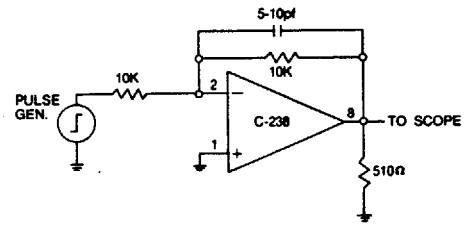


FIG. 1A

SLEW RATE MEASUREMENT CIRCUIT

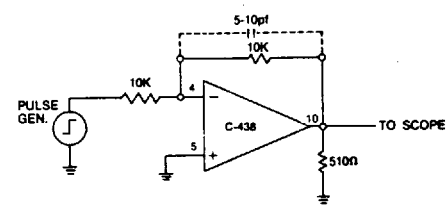


FIG. 2A

SETTLING TIME MEASUREMENT CIRCUIT

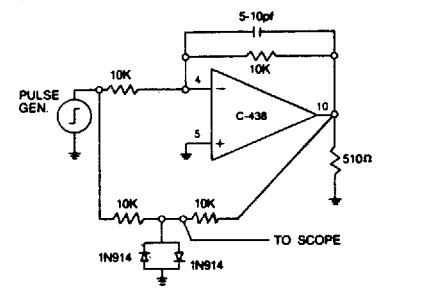


FIG. 3

UNITY GAIN FOLLOWER
WITH VOLTAGE OFFSET NULL
CIRCUIT