



AMERICAN MICROSEMICONDUCTOR INC.

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Features

- :: Controlled for Input Offset Voltage, Input Offset Current and Input Bias Current
- :: Balanced Differential Amplifier Configuration
- :: Contolled Constant Current Source
- :: Single-Ended and Dual-Ended Operation

Applications:

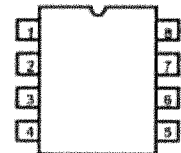
- :: DC, Audio and Sense Amplifiers
- :: Converter in the Commercial FM Band
- :: Oscillator
- :: Limiter
- :: Mixer

**CA3028BE**

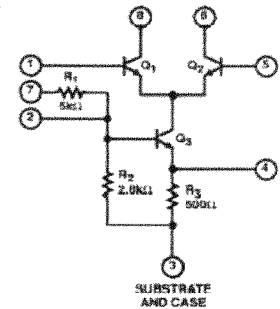
Differential/Cascode Amplifiers

Temp. Range .....	-55°C to 155°C	<b>Thermal Information</b>	
		Thermal Res.	$\theta_{JA}$ (°C/W)
			155

<b>Electrical Specifications</b> $T_A = 25^\circ\text{C}$						
PARAMETER	SYM	TEST COND	MIN	TYP	MAX	UNIT
<b>DC CHARACTERISTICS</b>						
Input Offset Voltage	$V_{IO}$	$V_{CC} = 6V, V_{EE} = -6V$	-	0.98	5.0	mV
		$V_{CC} = 12V, V_{EE} = -12V$	-	0.89	5.0	mV
Input Offset Current	$I_{IO}$	$V_{CC} = 6V, V_{EE} = -6V$	-	0.56	5.0	$\mu\text{A}$
		$V_{CC} = 12V, V_{EE} = -12V$	-	1.06	6.0	$\mu\text{A}$
Input Bias Current	$I_I$	$V_{CC} = 6V, V_{EE} = -6V$	-	16.6	40	$\mu\text{A}$
		$V_{CC} = 12V, V_{EE} = -12V$	-	36	80	$\mu\text{A}$
Max Peak-to-Peal Output Voltage at $f = 12\text{kHz}$	$V_O$ (P-P)	$V_{CC} = 6V, V_{EE} = -6V$ $VR_L = 2\text{k}\Omega$	7.0	11.5	-	$V_{P-P}$
		$V_{CC} = 12V, V_{EE} = -12V$ $VR_L = 1.6\text{k}\Omega$	15	23	-	$V_{P-P}$
Bandwidth at -3dB Point	BW	$V_{CC} = 6V, V_{EE} = -6V$ $VR_L = 2\text{k}\Omega$	-	7.3	-	MHz
		$V_{CC} = 12V, V_{EE} = -12V$ $VR_L = 1.6\text{k}\Omega$	-	8.0	-	MHz
Common Mode Input Voltage Range	$V_{CMR}$	$V_{CC} = 6V, V_{EE} = -6V$	-2.5	-3.2 to -4.5	4	V
		$V_{CC} = 12V, V_{EE} = -12V$	-5.0	-7 to -9	7	V
Common Mode Rejection Ratio	$V_{CMRR}$	$V_{CC} = 6V, V_{EE} = -6V$	60	110	-	dB
		$V_{CC} = 12V, V_{EE} = -12V$	60	90	-	dB
Input Impedence at $f=1\text{kHz}$	$Z_{IN}$	$V_{CC} = 6V, V_{EE} = -6V$	-	5.5	-	$\text{k}\Omega$
		$V_{CC} = 12V, V_{EE} = -12V$	-	3.0	-	$\text{k}\Omega$
Peak-to-Peak Output Current $F=10.7\text{MHz } e_{IN} = 400\text{mV}$	$I_{P-P}$	$V_{CC} = 9V$	2.5	4.0	6.0	mA
		$V_{CC} = 12V$	4.5	6.0	8.0	mA



8 Pin DIP



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