

**EET 131    UNIT 8 Reading    MOSFETS**

<b>Sec #</b>	<b>Topics</b>	<b>Page to Read</b>	<b># of Pgs</b>
7-1	<b>FETS Intro</b>	328	1/8
7-1	FET Input Resistance	341 1 <sup>st</sup> par under Input Res.	1/8
7-4	<b>MOSFET Basic Construction</b>	352 bottom 1/8, 353 top sentence	1/8
7-5	Handling Precautions	360 bottom ¼, 361 top 1/8	3/8
9-2	<b>MOSFETs in Power Amps</b>	444 bottom 1/8 and 445 top 2 par	1/3
7-4	<b>MOSFET Basic Operation</b>	355 top 7/8	7/8
7-4	<b>Power MOSFET Types</b>	355 bottom 1/8 thru 357 top 3/8	1 ½
7-5	<b>MOSFET Characteristics and Parameters</b>	<p>359 Top ½ required Bottom ½ (Optional)</p> <p>Note: The Eq. for K and I<sub>D</sub> are Difficult to Calculate and Highly Inaccurate</p> <p>The 100K Pot method will replace these Equations.</p>	½
7-5	A TMOS FET Data Sheet	360 top 5/8	5/8

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8-2	<b>MOSFET CS Amp</b>  (Common Source Amp)	399 bottom 7/8 Note: The transfer Curve is Non Linear and Results in some distortion of Output Waveform on the $I_D$ axis.  400 Example. 8-8 (c) only E-MOSFET	1 1/8
7-6	MOSFET Voltage ÷ <b>Biassing</b> for the CS Amp	362 bottom 1/2 skip $I_D = K(V_{GS} \dots)^2$ Eq. 363 top 1/2 skip k Equation & below  Using the 100K Pot Method is much much easier to get the Desired $V_{DS}$ .	1
7-7	<b>Troubleshooting</b> E MOSFET Bias Circuits	365 last para., 366 top 1/2	5/8
	<b>CS Amp</b> <b>DC and AC Analysis</b> <b>IMPORTANT</b>	400 bottom 1/3, Ignore $I_D$ Eq. and Ignore $R_{in}$ (gate); <b><math>R_{in} = R_1 \parallel R_2</math></b> <b>401 Top 3/4 Skip K &amp; <math>I_D</math> Eq.</b>	1 1/4
Ch. 7	<b>Summary CS Amp</b>	373 top 1/4, Skip Last 2 Lines & Read bottom right E-MOSFET Volt ÷	1/2
Ch. 8		414 Upper Right E-MOSFET Skip $I_D$ Eq. and use $R_{in} = R_1 \parallel R_2$	
8-3	<b>Common Drain Amp or (Source Follower)</b> Eq. are same as the Bipolar	402, 403 top 1/8 Ignore $R_{in}$ (gate)  404 top 1/8 – $A_v$ Calc. only $R_{in} = R_G$	1 1/4
		<b>Total # of Pgs</b>	<b>10 1/2</b>