EET 131 Unit 2 Reading Power supplies

FA07

Sec #	Topics	Pages to Read	# of Pg
2-1	**The Basic Power Supply**	50 top ¾	¾
2-1	**The Half Wave Rectifier**	50 bottom ¼, 51 skip pg 52 Avg value Read 52 bottom ¼ thru 55 top ¾	4 ¼
2-2	**Full Wave CT Rectifier** Note: PIV calc is not important unless working with HV supplies	55 bottom ¼ , 56 top ½ Up to **Eq 2-5 (skip V_{AVG})** 57 thru 60 top ¼	4
2-2	**The Full Wave Bridge Rectifier** Note: PIV is not important for low V supplies	60 bottom ¾ thru 62	2 ¾
2-3	**Power Supply Cap Filters** Note: His $V_{r(pp)}$ is same as my $V_{ripple\ p\text{-}p}$ $\left(\frac{1}{fC}\right)\frac{V_{p(rect)}}{R_L} = \left(\frac{1}{Cf}\right)I_{L(DC)}$ His = My	63 thru 67 top ¼	4 ¼
2-3	**Surge Current in the Cap Filter** The R surge calc. is not important. Be aware for large cap ≥ 4000µF use the next size amperage diode	67 bottom ¾ , 68 top 1/8	¾
2-6	**The Diode Data Sheet**	79 thru 83 top 1/8	4
2-3	**Percent Regulation** Note: A Transformer Unregulated PS has a 10 to 20 % drop in $V_{OUT\ DC}$ from No load to Full load.	69 top ¾	¾
2-3	**IC Voltage Regulators**	68 and 69 bottom ½	1 ½
	Ch 2 Review skip V_{AVG} & 0.7V for PIV (1½ pg)	93, 94 top ½ **Total # pg**	**24 ½**

EET 131 Unit 2 Reading Power supplies

FA07

Sec#	Topics	Pages to Read	# of Pg
2-7	(Optional) PS Troubleshooting		10