

Table 27. Rectifier Applications

Typical Circuit	Total Supply Power	Input Rectifiers Standard Recovery for Line Voltage Operation			
		Input Current	Suggested Devices*		
			Type	I _O	V _R *
<p>BASIC FLYBACK CONFIGURATION</p> <p>$P_O \approx I_{C(OP)} V_{in}^6$</p> <ul style="list-style-type: none"> • NO FILTER INDUCTANCE • LOW POWER MULTIPLE OUTPUT SYSTEMS • REFERENCE EB-87 <p>Total Supply Power — 10, 50, 75 W Input Current — < 1A to 2A</p>	10 W	< 1 A	1N4004	1 A	400 V
	50 W	1 A	1N4004	1 A	400 V
	75 W	2 A	MR504 1N5404	3 A 3 A	400 V 400 V
<p>BASIC FORWARD CONVERTER</p> <p>$P_O \approx I_{C(OP)} V_{in}^3$</p> <ul style="list-style-type: none"> • HIGHER OUTPUT POWER THAN FLYBACK • LOWER OUTPUT RIPPLE THAN FLYBACK <p>Total Supply Power — 75, 100 W Input Current — 2A to 3A</p>	75 W	2 A	MR504 1N5404	3 A 3 A	400 V 400 V
	100 W	3 A	MR504 1N5404	3 A 3 A	400 V 400 V
<p>BASIC HALF-BRIDGE CONFIGURATION</p> <p>$P_O \approx I_{C(OP)} V_{in}^3$</p> <ul style="list-style-type: none"> • NO SYMMETRY CORRECTION NEEDED • BEST TRANSFORMER UTILIZATION • HIGH FREQUENCY RIPPLE • REFERENCE AN-767 EB-78 AND EB-86 <p>Total Power Supply — 250, 100, 2500 W Input Current — 6A to 25A</p>	250 W	6 A	MR754 1N1204, A, B, C MR1124	6 A 12 A 12 A	400 V 400 V 400 V
	1000 W	12 A	1N1204, A, B, C MR1124 MDA2504 MR2004S	12 A 12 A 25 A 20 A	400 V 400 V 400 V 400 V
	2500 W	25 A	MDA2504 MDA3504 1N1183, A	25 A 35 A 40 A	400 V 400 V 400 V