



FEATURES

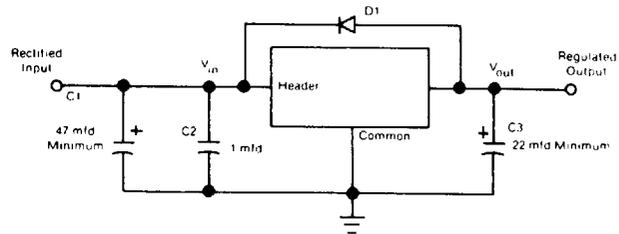
- Output current to 20 amps
- Output voltage to 28V
- Internal short circuit protection
- Hybrid construction

DESCRIPTION

The MII 42055 voltage regulators are positive polarity, series-pass, fixed output from 5 volts to 28 volts. Hybrid construction is utilized providing for current capability ranging from 20 amps at 5 volts to 8 amps at 28 volts.

These regulators are 3-terminal devices complete with internal short circuit protection including voltage shutdown and current fold-back.

**TYPICAL CONNECTION DIAGRAM
MIVR 42055**



Note 1: C1 can be included in the filter capacitor but must be at least 47 mfd.

Note 2: C2 must be a polyester dielectric (or equivalent) to provide good high frequency bypassing and should be mounted as close as practical to the regulator.

Note 3: D1 is recommended to prevent damage if input voltage drops below the output voltage.

MECHANICAL CONFIGURATION

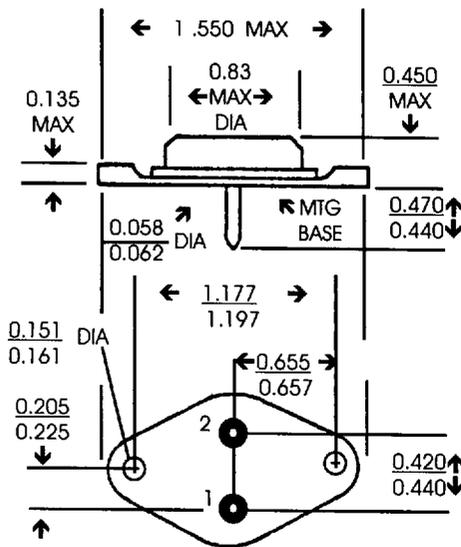
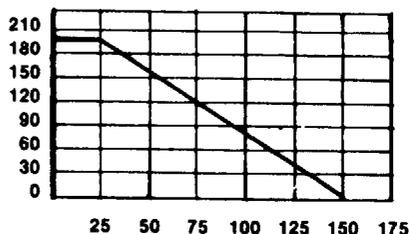


Figure 1, Power Derating



ABSOLUTE MAXIMUM RATINGS

Ratings	Symbol	Value	Unit
Output Current	I_{OUT}	20	A
Power Dissipation @ 25°C Case Temperature	PD	200	W
Input Voltage	V_{IN}	35	V

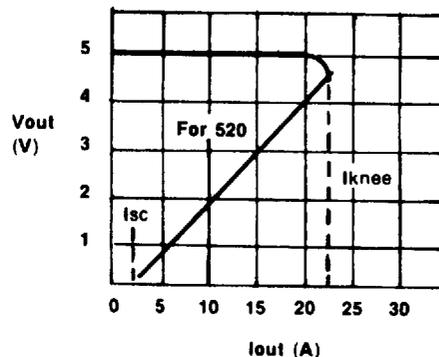
ELECTRICAL CONNECTIONS:

V_{IN} = Case

V_{OUT} = Pin 2

Ground: Pin 1

Figure 2, Typical Output Characteristics



Micropac Industries cannot assume any responsibility for any circuits shown or represent that they are free from patent infringement. Micropac reserves the right to make changes at any time in order to improve design and to supply the best product possible.

SPECIFICATIONS AT T CASE OF +25° C

PARAMETER	TEST CONDITIONS		LIMIT		UNITS
	V _{IN}	I _{out}	MIN	MAX	
Input Voltage		1A	V _{out} + 2V	35V	Volts DC
Output Voltage (Note 1)	V _{out} + 2.0V	1A	V _{out} - .1V	V _{out} + .1V	Volts DC
Output Current (Note 2)	V _{out} + 2.0V		0.5	20.0	Amps
Standby Current	35V	0		15	MA
Short Circuit Current	V _{out} + 2.0V			2.5	Amps
Power Dissipation (Note 4)				200	Watts
Thermal Resistance Junction to Case				0.63	°C/Watt
Maximum Oper Junction Temp				150	°C
Line Regulation (Note 3)	V _{out} + 2.0V to 35V	1A		1	% V _o
Load Regulation (Note 3)	V _{out} + 2.0V	1A to I _{max}		0.08	Volts DC
Temperature Coefficient (Note 5)	V _{out} + 2.0V	1A		.03	% V _o /°C
Ripple Attenuation (Note 6)	V _{out} + 2.0V	1A	-50		db

Note 1: See Table 1 for output voltages available

Note 2: See Table 1 for maximum current available for each voltage

Note 3: Instantaneous regulation, average chip temperature changes must be accounted for separately

Note 4: Derate above T_{case} = 25° C at 1.6 watts/°C

Note 5: Measured over temperature

T_{case} = 0° C to + 100° C

Note 6: Ripple frequency 50Hz to 500Hz

MIVR 42055 HYBRID VOLTAGE REGULATOR DEVICES

Standards Available

TYPE	V _{OUT} (volts)	MAX I _{OUT} (amps)	I _{KNEE} TYP (amps)
42055-0520	5	20	22
-0620	6	20	22
-0720	7	20	22
-0820	8	20	22
-0920	9	20	22
-1020	10	20	22
-1216	12	16	18
-1416	14	16	18
-1516	15	16	18
-1612	16	12	14
-1812	18	12	14
-2010	20	10	12
-2210	22	10	12
-2410	24	10	12
-2608	26	8	10
-2808	28	8	10