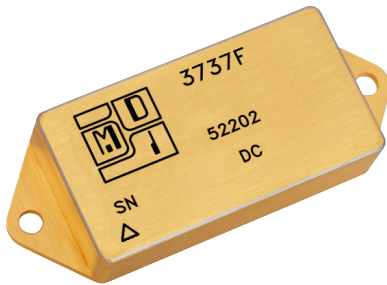


# Series 3737

## 19 – 50 Watt Hybrid DC - DC Converters

### 28 Volts DC Input



SINGLE OUTPUT DEVICES		3737-S01.9 (19W)			3737-S02.5 (40W)			3737-S03.3 (33W)			3737-S05 (50W)		
PARAMETER	CONDITION	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX
Output voltage	—	+1.85	+1.9	+1.95	+2.45	+2.5	+2.55	+3.225	+3.3	+3.3375	+4.9	+5.0	+5.1
Output current	$V_{in\ min} - V_{in\ max}$	0.1	—	10A	0.1	—	10A	0.1	—	10A	0.1	—	10A
Efficiency	$P_{out} = \text{max rated load}$	80%	84%	—	83%	87%	—	85%	88%	—	86%	90%	—
Line regulation	$P_{out} = \text{max rated load}$ $V_{in\ min} - V_{in\ max}$	—	10mV	20mV	—	10mV	20mV	—	10mV	20mV	—	10mV	20mV
Load regulation	$P_{out} = 10\% \text{ to F.L.}$	—	20mV	50mV	—	20mV	50mV	—	20mV	50mV	—	20mV	50mV
Output ripple	F.L. BW 2 MHz mV <sub>pp</sub>	—	50	100	—	50	100	—	75	100	—	100	200

Model No.	Case Style	Pin Count	Mounting
3737	22	10	Seam Weld Flangeless PCB Mount
3737	23	10	Seam Weld PCB Mount with Flange

### Features:

- Specifically designed for demanding military and aerospace applications where best value is critical.
- Rugged hermetic package
- High power density
- High Efficiency at low output voltages
- Survives MIL-STD-704A 80V surge
- Soft Start
- Input to outputs magnetically isolated
- Outputs have remote sense pins
- Synchronous rectification
- Voltage adjust pin
- Input Ripple Filter
- Output common mode filter
- No external components required
- Single outputs

### Specifications

**INPUT:** 28 VDC nominal  
Range: 15 to 50 VDC range  
Survives 80 V surges

### ISOLATION:

Input to case: 500 VDC  
Input to output: 500 VDC  
Output to case: 100 VDC

### ENVIRONMENT:

Storage temperature: -55°C to +150°C  
Shock: 50 G's  
Acceleration: 500 G's  
Vibration: 30 G's

### Grade M:

Full Power Output at  $T_{case} = -55^\circ\text{C}$  to  $+85^\circ\text{C}$   
Linearly derates to zero at  $T_{case} = +115^\circ\text{C}$

### Grade E:

Full Power Output at  $T_{case} = -55^\circ\text{C}$  to  $+125^\circ\text{C}$   
Linearly derates to zero at  $T_{case} = +135^\circ\text{C}$

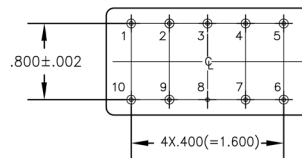
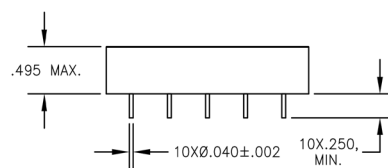
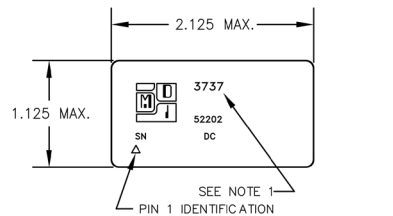
**WEIGHT:** 55 grams typical

### Pin Outs:

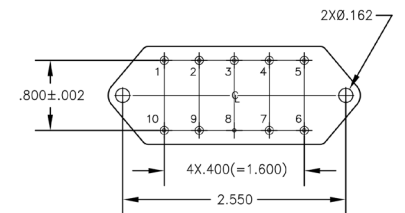
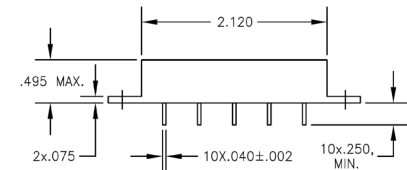
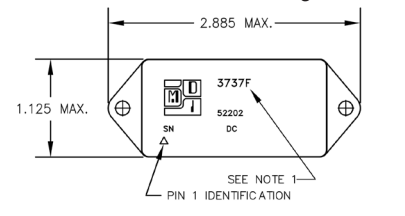
#### 3737-SXX

- Pin 1 + input
- Pin 2 trim
- Pin 3 neg sense
- Pin 4 output ret
- Pin 5 pos out
- Pin 6 pos sense
- Pin 7 N/C
- Pin 8 case
- Pin 9 inhibit
- Pin 10 + input ret

CASE STYLE 22  
Seam Weld



CASE STYLE 23  
Seam Weld with Flange



**TOLERANCES:** ALL DIMENSIONS ±0.01 EXCEPT F= MAX. C = +0.01/-0.02; **DRAWINGS IN INCHES.**

Note: Baseplate is recommended heat removal surface.

### Part Numbering System

3	7	3	7	G*	—	C†	V	V	.	V	P‡
Series and Power				Grade	—	Config	Voltage		.	Package	

Series and Power = MDI Model Number

G\* = Grade Level

BLANK = Industrial

M = Military

E = Extended Temperature

C† = Configuration

S = Single Output

V = Voltage

See Above Tables

P‡ = Package

-22 = Case Style 22

-23 = Case Style 23



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