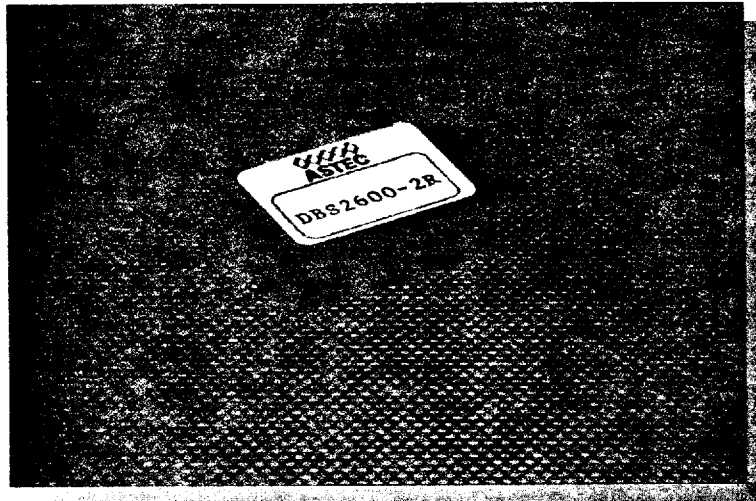




Available  
 Through  
 Distribution

T-57-11

The DB Series is ideal for high density PC board applications, where real estate is at a premium. Applications include telecommunications, auto test equipment, process control, etc.



**Special Features**

- 3 watts
- 24 pin DIP
- Regulated & unregulated outputs
- Auto-insertable

The DB Series is a low cost series of miniature DC/DC converters offering both single and dual outputs, regulated or unregulated. Features include efficiency to 93%, an operating range of -25 to +71°C with no derating, and an input Pi filter to reduce reflected ripple. Packaged in a 1.25 x 0.80 x 0.40 plastic case.

**Electrical Specifications**

**Input**

Vin - nominal	5, 12, 24, 48 Vdc
Voltage range	± 10%
Input filtering	Pi filter

**Output**

Voltage tolerance	± 3% (fixed)
Ripple and noise	50 mV p-p
Short circuit protection	Unreg: continuous, auto restart Reg: 10 min. max
Temperature coefficient	0.02% / °C max

**General**

Regulation:	
Line	Unreg: ± 5%; Reg: ± 0.25% max
Load	Unreg: ± 1% / % VIN; Reg: ± 1% max
Efficiency	Unreg: 70 - 93%; Reg: 55 - 72%
I/O isolation	500 Vdc
Switching frequency	20 kHz (typ)

**Environmental**

Operating temperature range:  
 -25°C to +71°C (no derating)

Storage temperature:  
 -40°C to +105°C

Cooling:  
 Free air convection

**Notes**

\* Measured with 3.3 µF 25 V tantalum capacitor across each output.

\*\* MTBF is calculated per MIL-HDBK-217E at +25° and ground benign.

All specifications are typical at nominal line and load at +25°C unless otherwise noted.

Specifications subject to change without notice.

DC/DC  
 Converters  
 3 Watts  
 DB Series

# DC/DC Converters



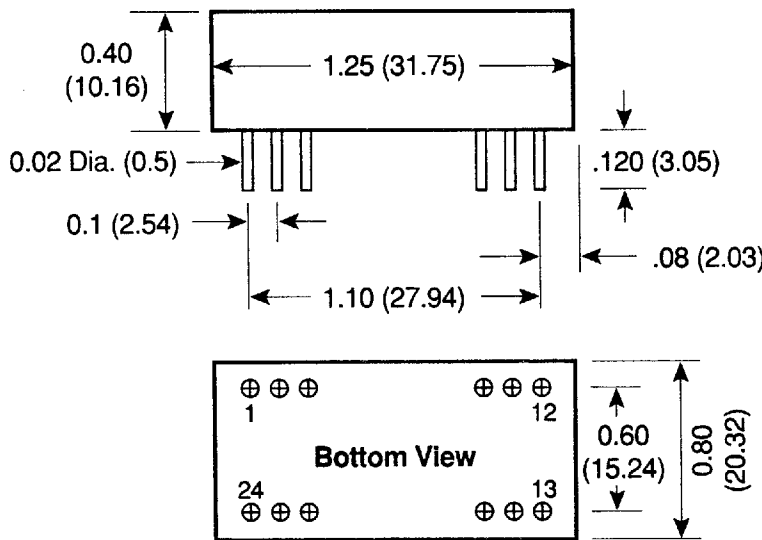
ASTECS STANDARD POWER  
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Telephone: 619-757-1880  
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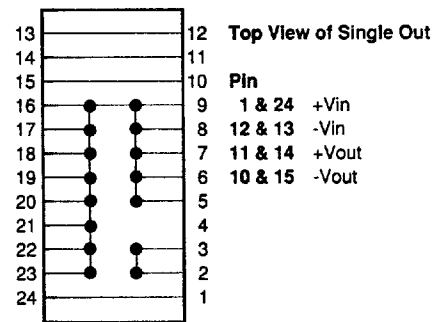
## Ordering Information

	Input Voltage	Output Voltage	Output Current	Model Number	Add Suffix
Single	5 Vdc	5 Vdc	600 mA	DBS2600-2	U (unregulated) or R (regulated)
	5 Vdc	9 Vdc	334 mA	DBS7334-2	U (unregulated) or R (regulated)
	5 Vdc	12 Vdc	250 mA	DBS3250-2	U (unregulated) or R (regulated)
	5 Vdc	15 Vdc	200 mA	DBS4200-2	U (unregulated) or R (regulated)
	12 Vdc	5 Vdc	600 mA	DBS2600-3	U (unregulated) or R (regulated)
	12 Vdc	9 Vdc	334 mA	DBS7334-3	U (unregulated) or R (regulated)
	12 Vdc	12 Vdc	250 mA	DBS3250-3	U (unregulated) or R (regulated)
	12 Vdc	15 Vdc	200 mA	DBS4200-3	U (unregulated) or R (regulated)
	24 Vdc	5 Vdc	600 mA	DBS2600-5	U (unregulated) or R (regulated)
	24 Vdc	9 Vdc	334 mA	DBS7334-5	U (unregulated) or R (regulated)
	24 Vdc	12 Vdc	250 mA	DBS3250-5	U (unregulated) or R (regulated)
	24 Vdc	15 Vdc	200 mA	DBS4200-5	U (unregulated) or R (regulated)
	48 Vdc	5 Vdc	600 mA	DBS2600-1	U (unregulated) or R (regulated)
	48 Vdc	9 Vdc	334 mA	DBS7334-1	U (unregulated) or R (regulated)
	48 Vdc	12 Vdc	250 mA	DBS3250-1	U (unregulated) or R (regulated)
		48 Vdc	15 Vdc	200 mA	DBS4200-1
Dual	5 Vdc	± 5 Vdc	± 300 mA	DBD2600-2	U (unregulated) or R (regulated)
	5 Vdc	± 9 Vdc	± 167 mA	DBD7334-2	U (unregulated) or R (regulated)
	5 Vdc	± 12 Vdc	± 125 mA	DBD3250-2	U (unregulated) or R (regulated)
	5 Vdc	± 15 Vdc	± 100 mA	DBD4200-2	U (unregulated) or R (regulated)
	12 Vdc	± 5 Vdc	± 300 mA	DBD2600-3	U (unregulated) or R (regulated)
	12 Vdc	± 12 Vdc	± 125 mA	DBD3250-3	U (unregulated) or R (regulated)
	12 Vdc	± 15 Vdc	± 100 mA	DBD4200-3	U (unregulated) or R (regulated)
	24 Vdc	± 5 Vdc	± 300 mA	DBD2600-5	U (unregulated) or R (regulated)
	24 Vdc	± 12 Vdc	± 125 mA	DBD3250-5	U (unregulated) or R (regulated)
	24 Vdc	± 15 Vdc	± 100 mA	DBD4200-5	U (unregulated) or R (regulated)
	48 Vdc	± 5 Vdc	± 300 mA	DBD2600-1	U (unregulated) or R (regulated)
	48 Vdc	± 12 Vdc	± 125 mA	DBD3250-1	U (unregulated) or R (regulated)
	48 Vdc	± 15 Vdc	± 100 mA	DBD4200-1	U (unregulated) or R (regulated)

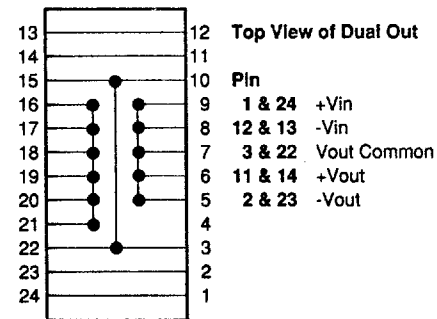
## Drawings



### Single Output



### Dual Output



## Pin Assignments

Single Output	Dual Output
Pin 1 & 24 +Vdc in	Pin 1 & 24 +Vdc in
Pin 10 & 15 -Vdc out	Pin 2 & 23 -Vdc out
Pin 11 & 14 +Vdc out	Pin 3 & 22 C. out
Pin 12 & 13 -Vdc in	Pin 10 & 15 C. out
	Pin 11 & 14 +Vdc out
	Pin 12 & 13 -Vdc in

### Notes

- All dimensions are in inches and (mm).
- Twelve pins 0.018 (0.5) square x 0.15 (3.8) Lg Min.