

DC-DC Astra AS3R-xxSxxiC series



3Watt Single Output Regulated 1500vdc Isolation Dc-Dc Converter

FEATURES:

- 2:1 Wide Input Voltages Range
- High Efficiency up to 80%
- Regulated Output Types
- Low Ripple And Noise
- Internal SMD Construction
- Operating Temperature: -40°C TO +85°C Industry Standard Pinout
- Continuous Short Circuit Protection With Current Foldback.



Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified				
Part Number	Input Voltage Range	Output Voltage Range	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
AS3R-12S03iC	9-18	3.3	909	70
AS3R-12S05iC	9-18	5	600	70
AS3R-12S09iC	9-18	9	333	75
AS3R-12S12iC	9-18	12	250	78
AS3R-12S05iC	9-18	15	200	80
AS3R-24S03iC	18-36	3.3	700	68
AS3R-24S05iC	18-36	5	600	70
AS3R-24S09iC	18-36	9	333	75
AS3R-24S12iC	18-36	12	250	78
AS3R-24S15iC	18-36	15	200	80
AS3R-48S03iC	36-72	3.3	700	68
AS3R-48S05iC	36-72	5	600	70
AS3R-48S09iC	36-72	9	333	75
AS3R-48S12iC	36-72	12	250	78
AS3R-48S15iC	36-72	15	200	80

Input Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo, Io Nom			2:1	
Filter	Capacitor				

Output Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output: 3.3-9V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output: 12-15V TYPES BW=DC To 20MHz			1% of Vout	mVp-p
Transient response setting time	50% load step change		350		us

General Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input		100		KHz
Operating Temperature		-40		85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	1500000			Hours
Weight			4.5		g
Dimensions			21.8X9.2X11.1		mm

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Temperature Derating Graph	Part Number
	<p>AS3 R- 05 S 05 I C 1 2 3 4 5 6 7</p> <p>1:series 2:wide input 2:1 3:Regulated 4:Input Voltage 5:Single Output 6:Output voltage 6:Case SIP8 21.80x9.20x11.1 7:Continuous short circuit protection</p>

Recommended Test Circuit
<p style="text-align: right;">Cin: 10 μ F, 100V Cout: 100 μ F, 25V</p>

Markings and Dimensions	Packaging												
<p style="text-align: center;">UNIT : mm TYP tolerances are ± 0.5</p>	<p style="text-align: center;">UNIT:mm</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th colspan="4">Size(mm)</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>12.0</td> <td>28.55</td> <td>550</td> <td>6.00</td> </tr> </tbody> </table>	Size(mm)				A	B	C	D	12.0	28.55	550	6.00
Size(mm)													
A	B	C	D										
12.0	28.55	550	6.00										

PIN Connection						
PIN	1	2	3	6	7	8
Single	-Vin	+Vin	Ctrl-Control input can (can be left open)	+Vout	-Vout	NC