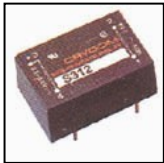



## SERIES 3



Product	Control Voltage Range	Load Current	Switching Voltage Type	Turn On	Load Voltage Range
 <b>S312</b>	3.5-8 Volts DC	0.15-3 Amps RMS	AC	Zero cross	20-140 Volts RMS

SCR output • 3Amp • 120/240 Vrms • AC Switching • DC control • Snubber and snubberless versions • Ideal replacement for Reed and electromechanical relays.

- ▶ [Specification PDF](#)
- ▶ [Contact Us](#)
- ▶ [Find a Distributor](#)

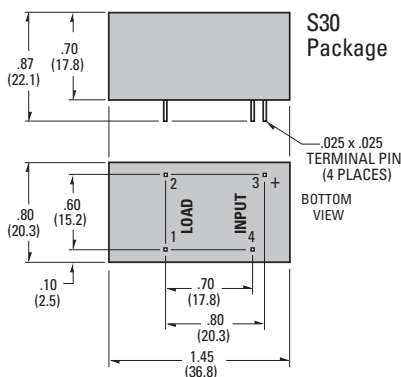
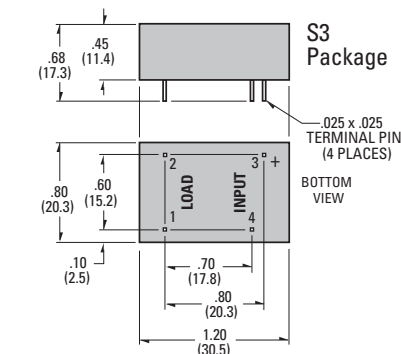
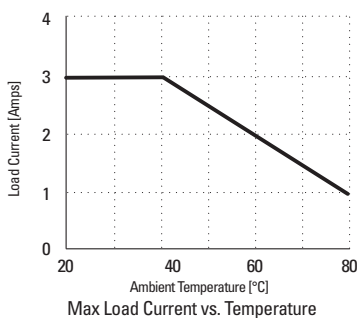
- Compact for High Density PCB Mount
- Small Footprint
- UL, CSA, VDE Approved

work (S3 types), Series 3 is an ideal replacement for power reed relays in microprocessor or computer-based logic level systems. Designed for long, reliable service in a multitude of demanding industrial environments.

These solid state relays combine small size and high ratings in a PC-board-mounted SPST-NO design. Available with (S30 types) or without snubber net-

Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

### CURRENT DERATING CURVE



All dimensions are in inches (millimeters)

### APPROVALS

UL E116949  
CSA LR81689  
VDE 10114 UG



SERIES 3  
Rev. 111307  
PAGE 1 OF 2

MODEL NO.	S312	S3012A	S322	S3022A
<b>INPUT SPECIFICATIONS ①</b>				
Control Voltage Range	3.5-8 Vdc		3.5-8 Vdc	
Nominal Input Impedance	200 Ohm		200 Ohm	
Typical Input Current @ 5 Vdc	20 mA <sub>dc</sub>		20 mA <sub>dc</sub>	
Must Turn On Voltage	3.5 Vdc		3.5 Vdc	
Must Turn Off Voltage	1.0 Vdc		1.0 Vdc	
<b>OUTPUT SPECIFICATIONS ①</b>				
Operating Voltage Range (47-63 Hz)	20-140 Vr <sub>rms</sub>		40-280 Vr <sub>rms</sub>	
Load Current Range (Arms)	.15-3.0	.15-3.0	.15-3.0	.15-3.0
Transient Over-Voltage	600 V <sub>pk</sub>		600 V <sub>pk</sub>	
Max. Surge Current, (16.6ms)	55 A <sub>pk</sub>		55 A <sub>pk</sub>	
Min. Off-State dv/dt @ Max. Rated Voltage ③	200 V/μsec		200 V/μsec	
Max. Off-State Leakage @ Rated Voltage	1.0 mA	4.0 mA	1.0 mA	4.0 mA
Max. On-State Voltage Drop @ Rated Current	1.5 V <sub>pk</sub>		1.5 V <sub>pk</sub>	
Max. Turn-On Time	1/2 cycle		1/2 cycle	
Max. Turn-Off Time	1/2 cycle		1/2 cycle	
Power Factor (Min.) With Max. Load	0.5		0.5	
<b>GENERAL SPECIFICATIONS</b>				
Dielectric Strength ②	4000 Vr <sub>rms</sub>			
Insulation Resistance (Min.) @ 500 Vdc ②	10 <sup>9</sup> Ohm			
Max. Capacitance	8.0 pF			
Ambient Operating Temperature Range	-30 to 80°C			
Ambient Storage Temperature Range	-30 to 125°C			
<b>MECHANICAL SPECIFICATIONS</b>				
Weight: (typical)	0.6 oz. (0.8 g)			
Encapsulation:	Thermally Conductive Epoxy			

© 2007 CRYDOM Inc., Specifications subject to change without notice.

### GENERAL NOTES

- ① All parameters at 25°C unless otherwise specified.
- ② Dielectric and insulation resistance are measured between input and output.
- ③ Off-State dv/dt test method per EIA/NARM standard RS-443.

For recommended applications and more information contact:

USA: Sales Support (877) 502-5500 Tech Support (877) 702-7700 FAX (619) 710-8540

Crydom Inc., 2320 Paseo de las Americas, Ste. 201, San Diego, CA 92154

Email: sales@crydom.com WEB SITE: http://www.crydom.com

UK: +44 (0)1202 606030 • FAX +44 (0)1202 606035 Crydom SSR Ltd., Arena Business Centre,

Holyrood Close, Poole, Dorset BH17 7FJ, Email: intsales@crydom.com.

GERMANY: +49 (0)180 3000 506

