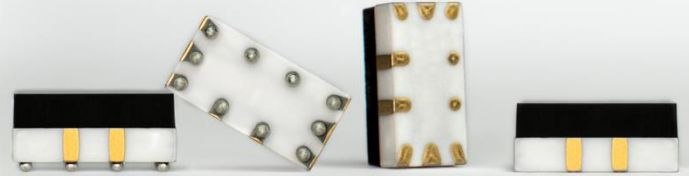


# CRR Series Reed Relays



- Features: Ultra miniature SMD relay for High Density Assembly, High Insulation Resistance up to 10 TOhm
- Ceramic/Thermoset Molded Package, Supplied in Tape & Reel, UL listed, BGA option
- Applications: Test and Measurement Systems, Telecommunications, Medical applications, Multiplexers

Part Description: **CRR00-1AX (250)**



Nominal Voltage	Contact Quantity	Contact Form	Options	Packaging Tape & Reel
03, 05	1	A	empty = Non-BGA S = Soldering Balls BGA	empty (standard) = 1000 pcs 250 (optional) = 250 pcs
See page 3 for Glossary				

Contact Data (at 20°C)	Switch Model	Unit
	80 (A-Dry)	
<b>Contact Material</b>	Rhodium	
<b>Rated Power (max.)</b> Any DC combination of V&A not to exceed max rated power	10	W
<b>Switching Voltage (max.)</b> DC or peak AC	170	V
<b>Switching Current (max.)</b> DC or peak AC	0.5	A
<b>Carry Current (max.)</b> DC or peak AC	1.0	A
<b>Contact Resistance (max.)</b> @ 0.5V & 10mA, Measured with 40% Pull-In Overdrive	200	mOhm
<b>Breakdown Voltage (min.)</b> According to IEC 60255-27	210	VDC
<b>Operating Time (max.)</b> Including Bounce, Measured with 40% Pull-In Overdrive	0.6	ms
<b>Release Time (max.)</b> Measured without Coil Suppression	0.05	ms
<b>Insulation Resistance (min. / typ.)</b> Rh<45%, 100V Test Voltage	10 <sup>11</sup> / 10 <sup>12</sup>	Ohm
<b>Capacitance (typ. / max.)</b> @ 10kHz across Open Switch	0.3 / 0.5	pF

Series Datasheet – CRR Reed Relays

www.andiantech.com

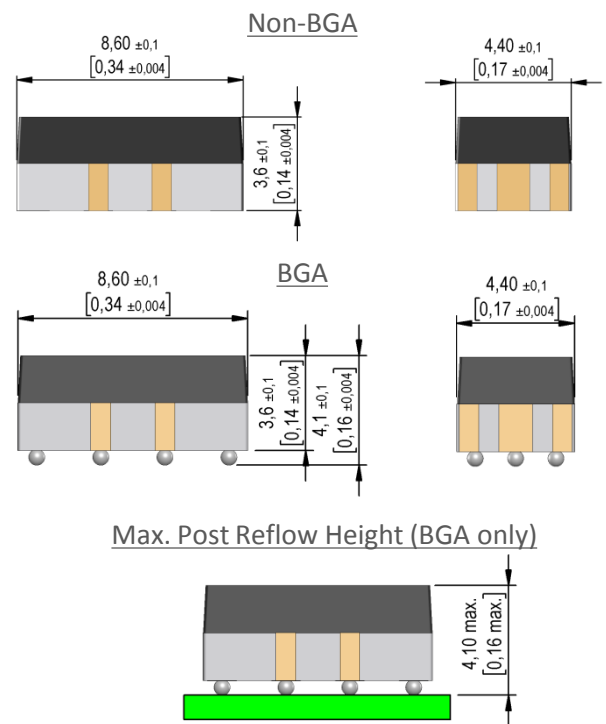
Coil Data (at 20°C)		Coil Voltage (VDC)		Coil Resistance (Ohm)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Coil Power (mW)
Contact Form	Switch Model	Nominal	Maximal	Typical (± 10 %)	Maximal	Minimal	Nominal
1A	80	03	05	70	2.25	0.45	129
		05	7.5	150	3.75	0.75	167

The Pull-In, Drop-Out Voltage and Coil Resistance will change at rate of 0.4% per °C

Relay Data (at 20°C)		Unit
<b>Contact Bulk Resistance (typ./max.)</b> Through all plated material on substrate	260 / 440	mOhm
<b>Dielectric Strength Coil/Contact (min.)</b> According to IEC 60255-27	1.5	kVDC
<b>Insulation Resistance Coil/Contact (typ./min.)</b> Rh<45%, 200V Test Voltage	10 <sup>12</sup> / 10 <sup>13</sup>	Ohm
<b>Capacitance Coil/Contact (typ./max.)</b> @ 10 kHz with Closed Switch	0.9 / 1.1	pF
<b>Shock Resistance (max.)</b> 1/2 sine wave duration 11ms	50	g
<b>Vibration Resistance (max.)</b> 10 – 2,000 Hz	20	g
<b>Operating Temperature (max.)</b> Surrounding of the relay's housing	-40 to 125	°C
<b>Storage Temperature (max.)</b> Surrounding of the relay's housing	-55 to 125	°C
<b>Soldering Temperature (max.)</b> 5 seconds max.	255	°C
<b>Washability</b> Aqueous rinsing suitable. Proper drying necessary.	Fully Sealed	

CRR Reed Relay Dimensions (in mm [inch])

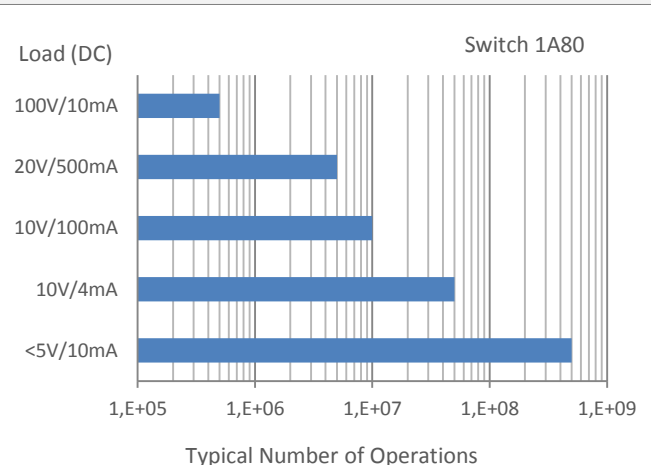
Tolerances acc. to ISO 2768-m

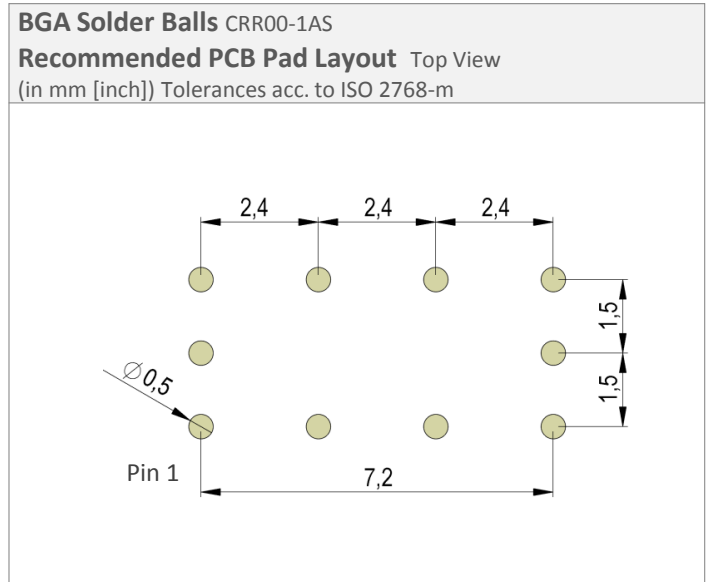
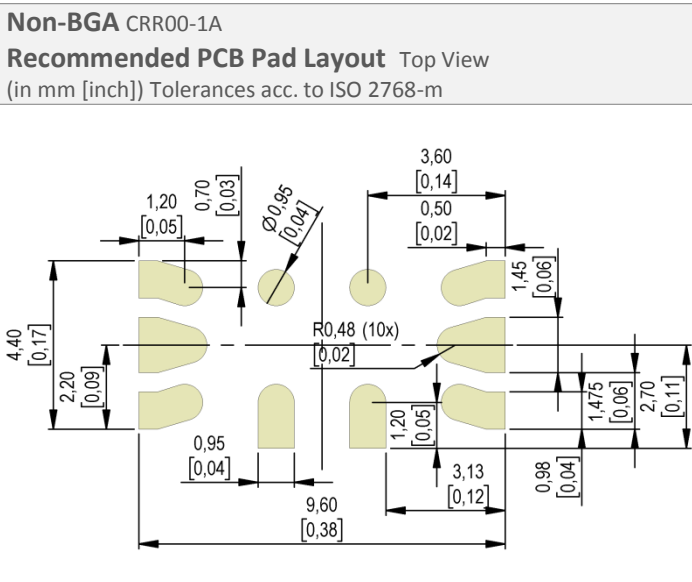
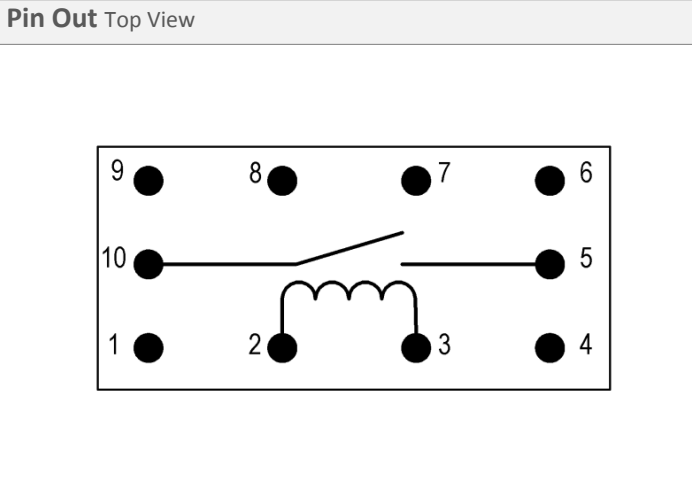


Handling & Assembly Instructions

- Switching inductive and/or capacitive loads create voltage and/or current peaks, which may damage the relay. Protective circuits need to be used - see our website.
- External magnetic fields and magnetic effects, due to adjacent relays in high density matrices that may influence the relays' electrical characteristics, must be taken into consideration.
- Mechanical shock impacts, e.g. dropping the relays, may cause immediate or post-installation failure.
- Suppressing coil diode can have a negative influence on total number of switching cycles
- Reflow soldering: See the page 4. Recommendations given by the soldering paste manufacturer need to be considered as well as the temperature limits of other components/processes.

Life Test Data (with resistive load, for general information only)





**Glossary Contact Form**

<b>Form A</b>	NO = Normally Open Contact SPST = Single Pole Single Throw
<b>Form B</b>	NC = Normally Closed Contacts SPST = Single Pole Single Throw
<b>Form C</b>	Changeover SPDT = Single Pole Double Throw
<b>Form E</b>	Latching unchanged until an opposite impulse is present

CRR Relays are available only in "Form A" configuration

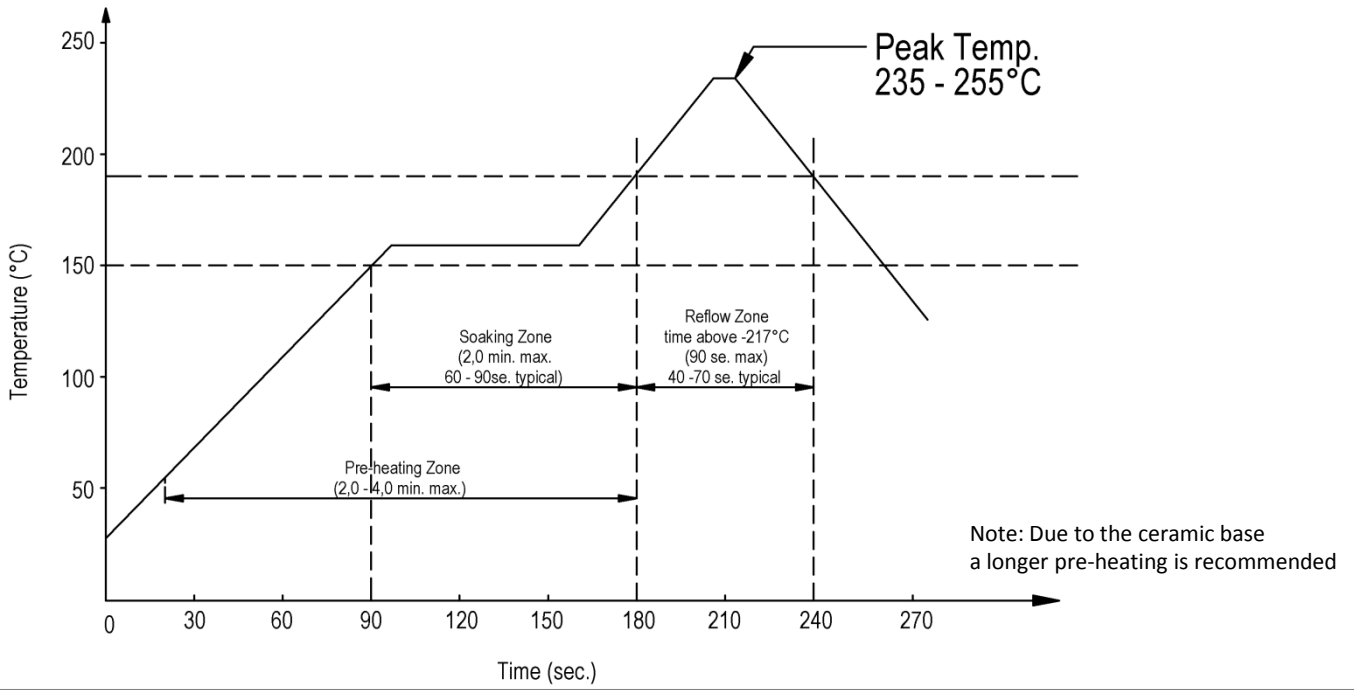
**Glossary Option**

<b>CRR Basic</b>	with Magnetic Shield, without Diode
<b>L</b>	Standard
<b>D</b>	with Diode
<b>M</b>	with Magnetic Shield, without Diode
<b>Q</b>	with Diode and Magnetic Shield
<b>HR</b>	High Resistance Coil

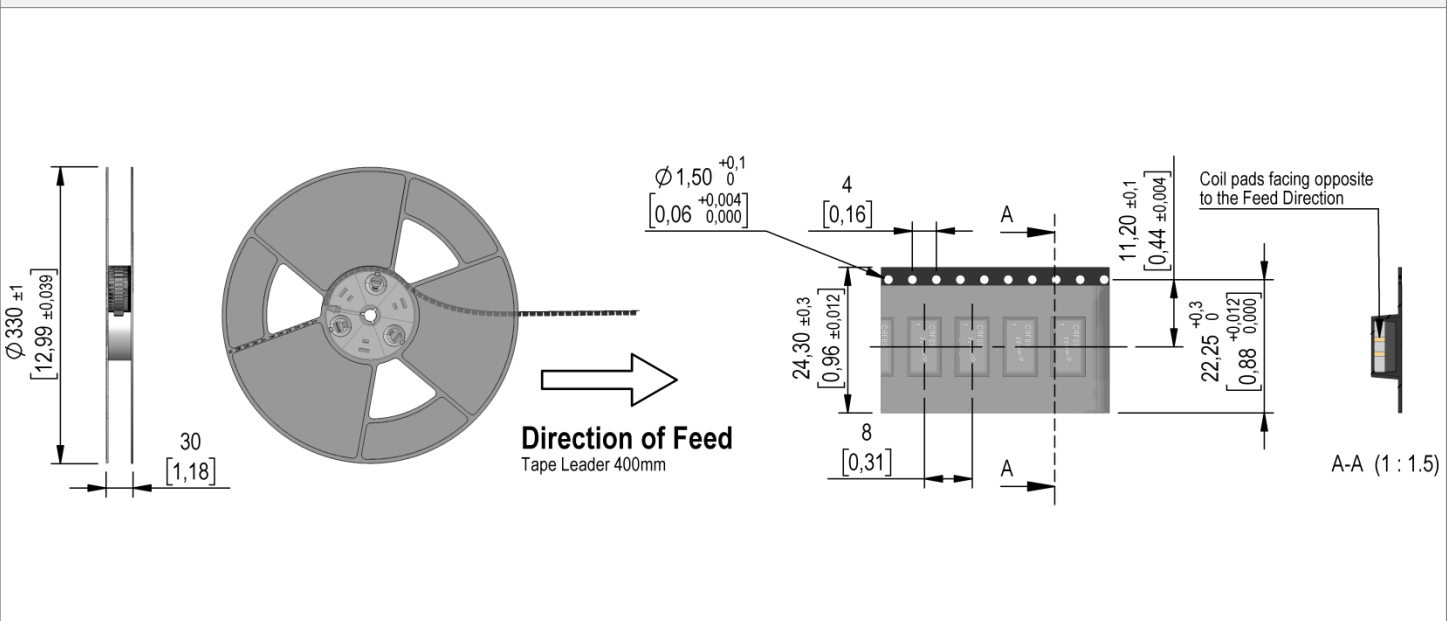
CRR Relays are available only with "Basic" Option

**Recommended Reflow Lead-free Profile** (acc. to JEDEC J-STD 020D.1)

For usage with tin Sn96.5/Ag3/Cu0.5



**CRR Relay Packaging Orientation** (Tape&Reel per 1000 pcs. or 250 pcs.)



**Please note:** All technical specifications on this series datasheet refer to the standard product range. Modifications in the sense of technical progress are reserved. For general information only. For more specific information, please consult the product datasheet, available upon request.

This series datasheet could contain technical inaccuracies or typographical errors. Changes are periodically made to the information herein. These changes will be incorporated in future revisions.

For deviating values, latest specifications and product details, please contact your nearest sales office.