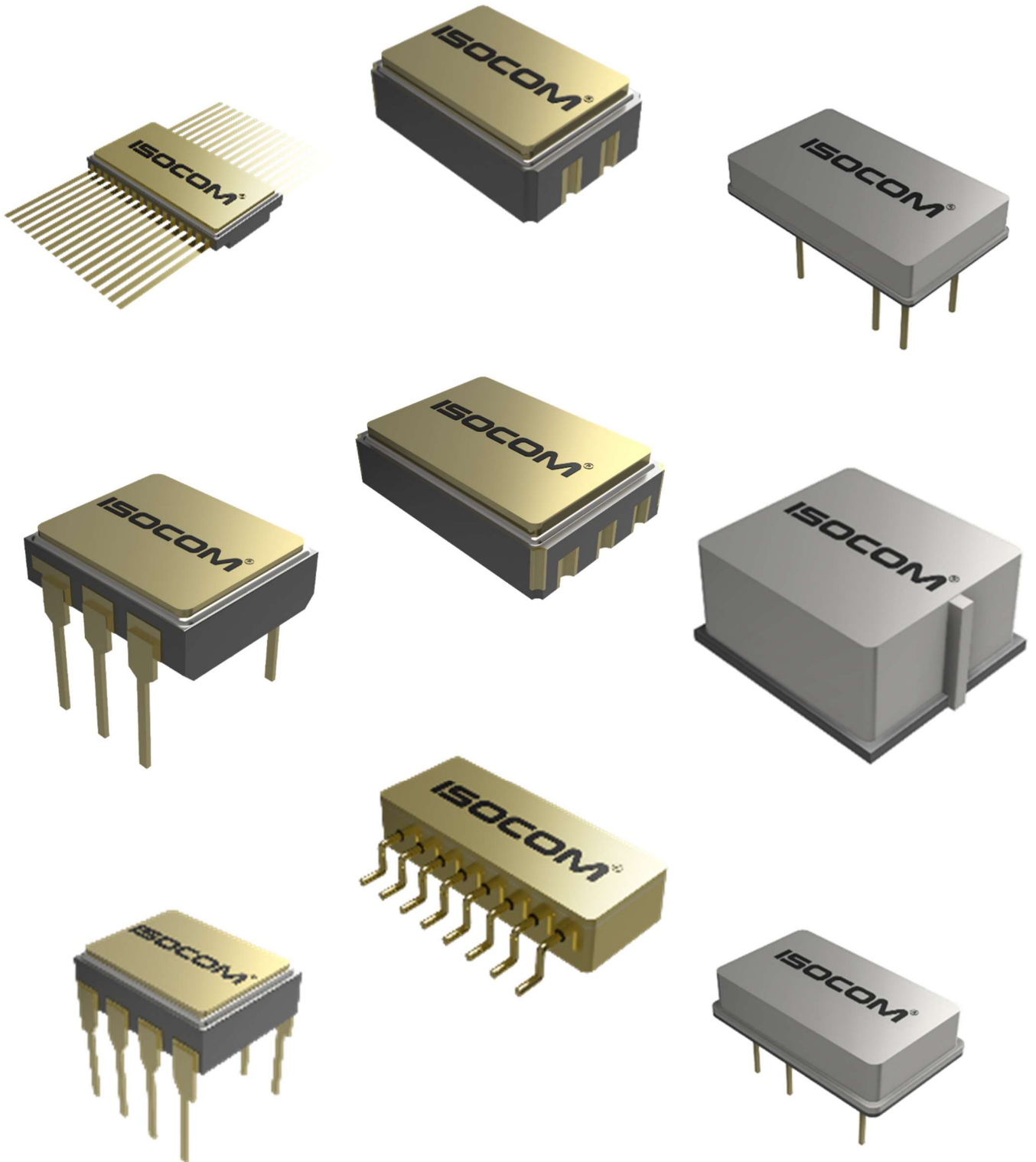


# ISOCOM<sup>®</sup>

L I M I T E D



## SOLID STATE RELAY SELECTION GUIDE

## ISOCOM LIMITED FACILITIES AND CAPABILITIES

ISOCOM Limited, based in the North East of England, specialises in Custom Packaging and Hybrid Assembly Design with clean room manufacturing including wire bonding, die attaching and lid sealing. Our screening facilities and test capabilities include:

- ATE and bench test equipment for all component parameters
- High temperature handlers
- High/Low temperature forcing
- Die wafer probing
- High magnification inspection station
- Acceleration tests to 30,000G
- Vibration test to MIL and DESC levels
- Solderability tests
- Fluorocarbon pressurisation and gross and fine leak tests
- Endurance tests and environmental tests, including Temperature Cycling and various Burn-in processes
- Particle Impact Noise Detector (PIND) testing
- Hermetic Sealing of components
- Full production equipment for Hybrid and PCB assemblies
- Conceptual design to final production: components and systems
- Ceramic and metal product design.



We would welcome the opportunity to discuss how we can help you achieve your custom design requirements. Our contact details are set out below.

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If you can't find what you need, please contact our sales office to offer alternatives to the circuits. Isocom offers custom design with modifications for voltage, current applications and input, output selection pins to match your requirements.



Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays										
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)	
CDMR310A			DC	2	3.0	100	8-pin DIP Page 16 Fig. 4	2.0	6.0	
CDMR310B			DC	2	3.0	100	8-pin DIP Page 16 Fig. 4	2.0	6.0	
CDMR2010			DC	2	10.0	200	Surface Mount 8-pin Page 17 Fig. 5	10	1.5	
CDMR1010			DC	2	12.0	100	Surface Mount 8-pin Page 17 Fig. 5	0.75	0.45	

Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays										
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)	
IS53252			DC	2	0.8	90	8-pin DIP Page 16 Fig. 4	2.0	6.0	
CQMR310			DC	4	3.0	100	Flatpack 32-pin Page 17 Fig. 6	2.0	6.0	
IDCS63			AC/DC	1	1	100	8-pin DIP Page 16 Fig. 4	0.25	6.0	
IDCS63			DC	1	3	100	8-pin DIP Page 16 Fig. 4	0.25	6.0	

Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays									
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)
CSMR40			AC/DC	1	0.8	100	8-pin DIP Page 16 Fig. 4	0.25	6.0
CSMR41			DC	1	1.6	100	8-pin DIP Page 16 Fig. 4	0.25	6.0
CSMR140			DC	1	0.8	100	LCC-4 Page 16 Fig. 1	2.0	6.0
CSMR252			DC	2	3.0	100	8-pin DIP Page 16 Fig. 4	2.0	6.0

Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays										
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)	
CSMR540			AC/DC	1	0.12	400	8-pin DIP Page 16 Fig. 4	1.0	3.0	
CSMR540			DC	1	0.24	400	8-pin DIP Page 16 Fig. 4	1.0	3.0	
CSMR1820			AC/DC	1	0.8	200	8-pin DIP Page 16 Fig. 4	0.25	6.0	
CSMR1820			DC	1	1.6	200	8-pin DIP Page 16 Fig. 4	0.25	6.0	



Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays										
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)	
MSMR061			DC	1	1.0	100	4-pin TO Page 18 Fig. 10	0.3	3.0	
CSMR061A			DC	1	1.0	100	8-pin DIP Page 16 Fig. 4	0.25	1.5	
CSMR061B			DC	1	1.0	100	8-pin DIP Page 16 Fig. 4	0.25	1.5	
CSMR062A			DC	1	2.0	100	8-pin DIP Page 16 Fig. 4	0.25	1.5	

Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays										
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)	
CSMR062B			DC	1	2.0	100	8-pin DIP Page 16 Fig. 4	0.25	1.5	
MSMR062A			DC	1	2.0	100	14-pin Metal Page 17 Fig.8	1.0	3.0	
MSMR062B			DC	1	2.0	100	14-pin Metal Page 17 Fig.8	1.0	3.0	
MSMR062C			DC	1	2.0	100	14-pin Metal Page 17 Fig.8	1.0	3.0	

**Component Specification  
For Ceramic Hermetically Sealed, Radiation-Hard  
Solid State Relays**

Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)
<b>MSMR062D</b>			DC	1	2.0	100	14-pin Metal Page 17 Fig.8	1.0	2.0
<b>MSMR062E</b>			DC	1	2.0	100	22-pin Metal Page 18 Fig. 9	1.0	5.0
<b>MSMR065A</b>			DC	1	5.0	100	22-pin Metal Page 18 Fig. 9	2.0	5.0
<b>MSMR065B</b>			DC	1	5.0	100	22-pin Metal Page 18 Fig. 9	2.0	5.0

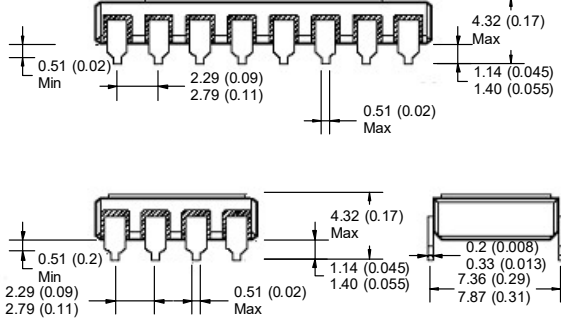
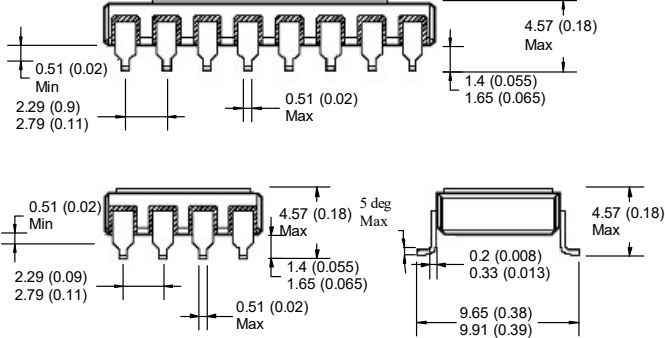
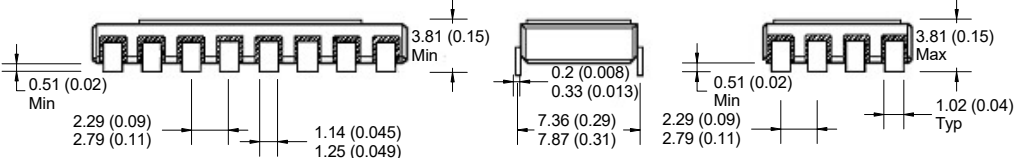
Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays										
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)	
MSMR065C			DC	1	5.0	60	22-pin Metal Page 18 Fig. 9	2.0	5.0	
MSMR065D			DC	1	5.0	60	22-pin Metal Page 18 Fig. 9	2.0	5.0	
MSMR0610A			DC	1	10.0	60	22-pin Metal Page 18 Fig. 9	2	5	
MSMR0610B			DC	1	10.0	60	22-pin Metal Page 18 Fig. 9	2	5	

Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays										
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)	
MSMR0610C			DC	1	10.0	60	22-pin Metal Page 18 Fig. 9	2	5	
MSMR0610D			DC	1	10.0	60	22-pin Metal Page 18 Fig. 9	2	5	
CSMR202			AC	1	2.0	200	6-pin dip Page 16 Fig. 3  LCC-6 Page 16 Fig. 2	1/2 cycle	1 cycle	
MSMR202			AC	1	2.0	200	14-pin Metal Page 17 Fig.8	1/2 cycle	1 cycle	

Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays										
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)	
MDMR202A			AC	2	2.0	200	22-pin Metal Page 18 Fig. 9	1/2 cycle	1 cycle	
MDMR202B			AC	2	2.0	200	22-pin Metal Page 18 Fig. 9	1/2 cycle	1 cycle	
MDMR2075A			AC	2	7.5	200	22-pin Metal Page 18 Fig. 9	1/2 cycle	1 cycle	
MDMR2075B			AC	2	7.5	200	22-pin Metal Page 18 Fig. 9	1/2 cycle	1 cycle	

Component Specification For Ceramic Hermetically Sealed, Radiation-Hard Solid State Relays										
Part No.	Functional Diagram	Package Details	Circuit Type	No. of Relays per package	Output Supply Current (A)	Output Supply Voltage (V)	Package Type	Turn-off Time MAX (ms)	Turn-on time MAX (ms)	
<b>MDMR3505</b>			AC/DC/BI	2	0.5	350	6-pin mini-DIP Page 17 Fig. 7	500µs	500µs	
<b>MDMR181</b>			AC/DC/BI	2	1.0	180	6-pin mini-DIP Page 17 Fig. 7	500µs	800µs	
<b>MDMR082</b>			AC/DC/BI	2	2.0	80	6-pin mini-DIP Page 17 Fig. 7	500µs	800µs	

## SOLID STATE SURFACE MOUNT OPTIONS

Option	Description
10	<p>Surface mountable hermetic optocoupler with leads trimmed for butt joint assembly. This option is available on commercial hi-rel product in 8 and 16 pin DIP</p>  <p><i>Fig. 1 8 and 16 pin DIP trimmed for butt joint assembly</i></p>
20	Solder Dip Option
30	<p>Surface mountable hermetic optocoupler with leads cut and bent for gull wing assembly. This option is available on commercial and hi-rel product in 8 DIP.</p>  <p><i>Fig. 2 8 and 16 pin DIP with leads cut and bent for gull wing assembly</i></p>
60	<p>Surface mountable hermetic optocoupler with leads trimmed for butt joint assembly. This option is available on commercial hi-rel product in 8 DIP</p>  <p><i>Fig. 3 8 and 16 pin DIP with leads trimmed for butt joint assembly</i></p>



## PACKAGE DIMENSIONS

Figure 1: 4 Pin LCC

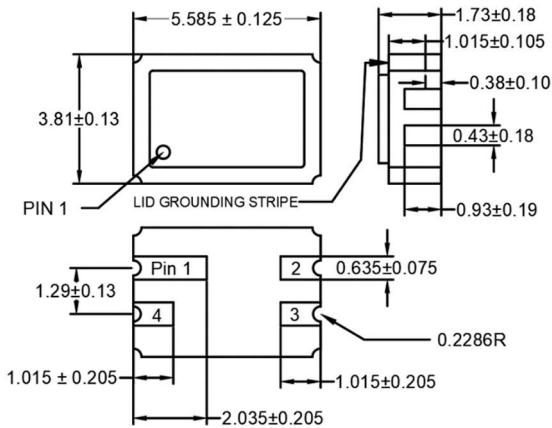


Figure 2: 6 Pin LCC

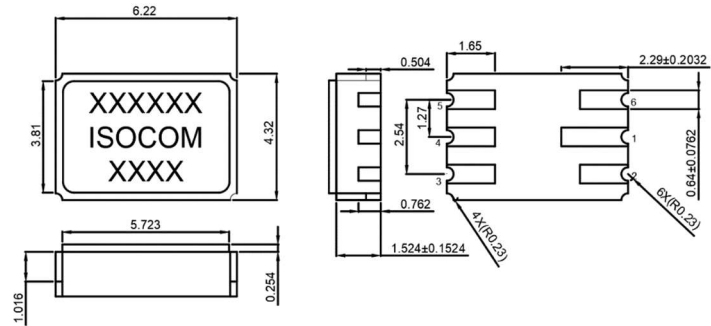


Figure 3: 6 Pin DIP

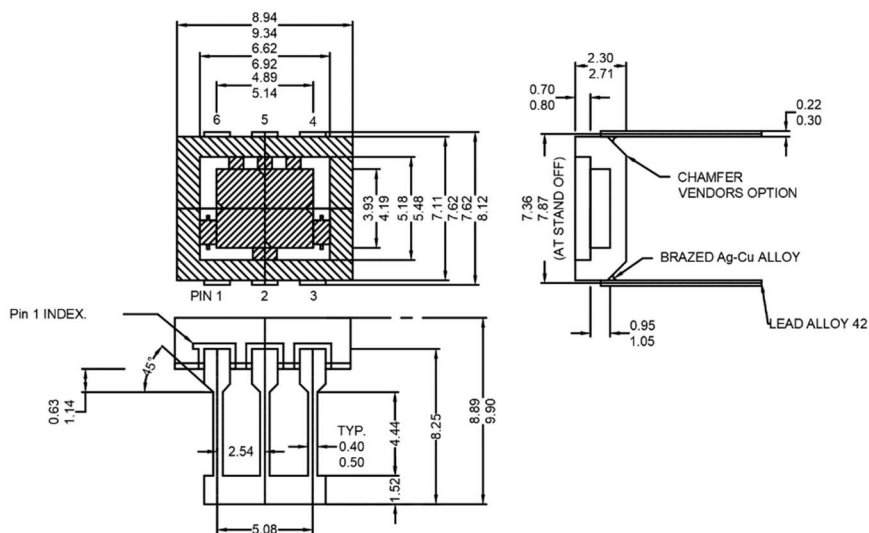
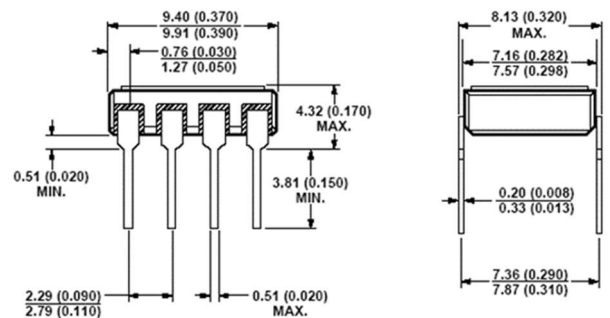
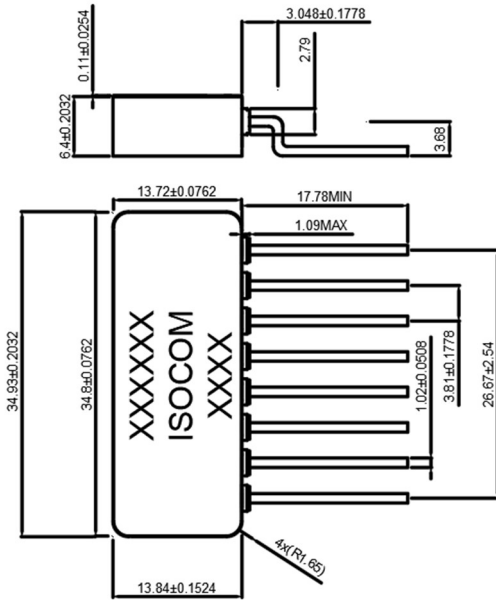


Figure 4: 8 Pin DIP

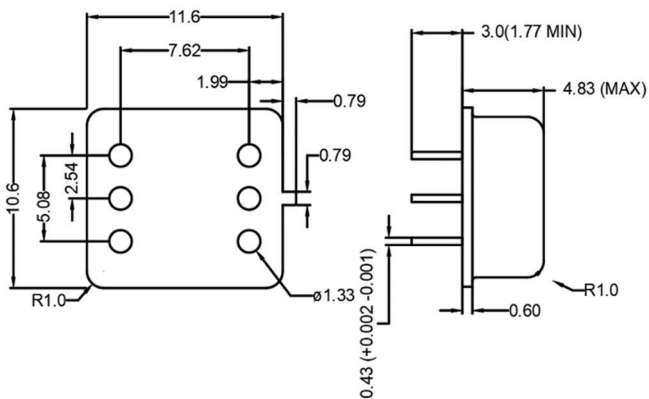


Activat

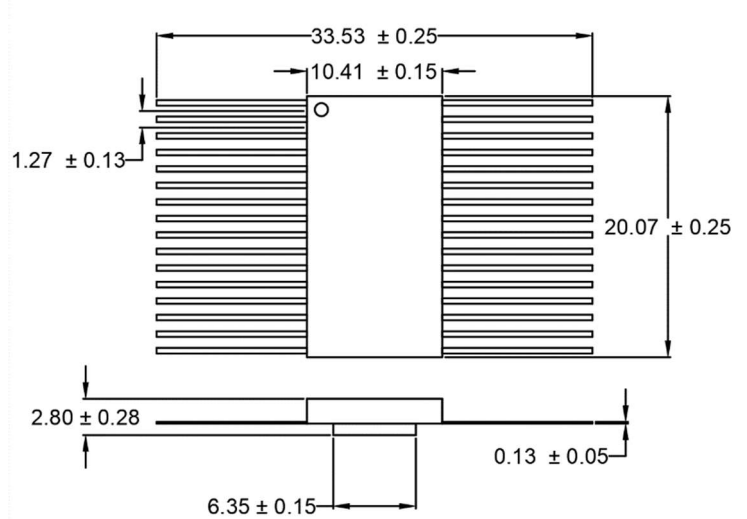
**Figure 5: Surface Mount 8-pin**



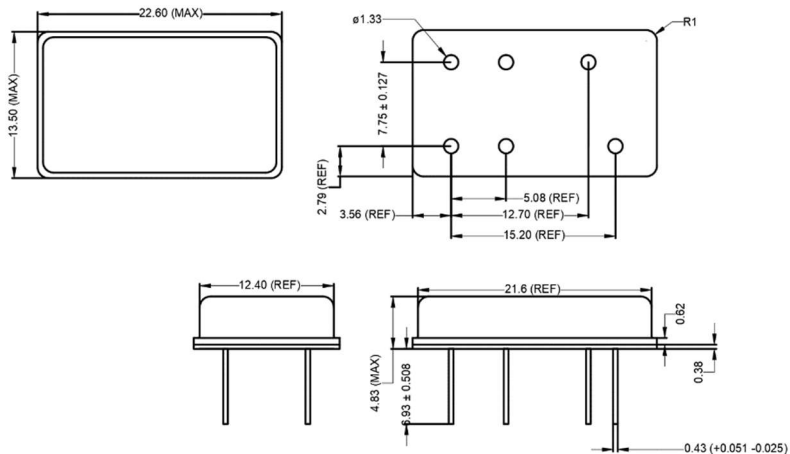
**Figure 7: 6-pin Mini Dip**



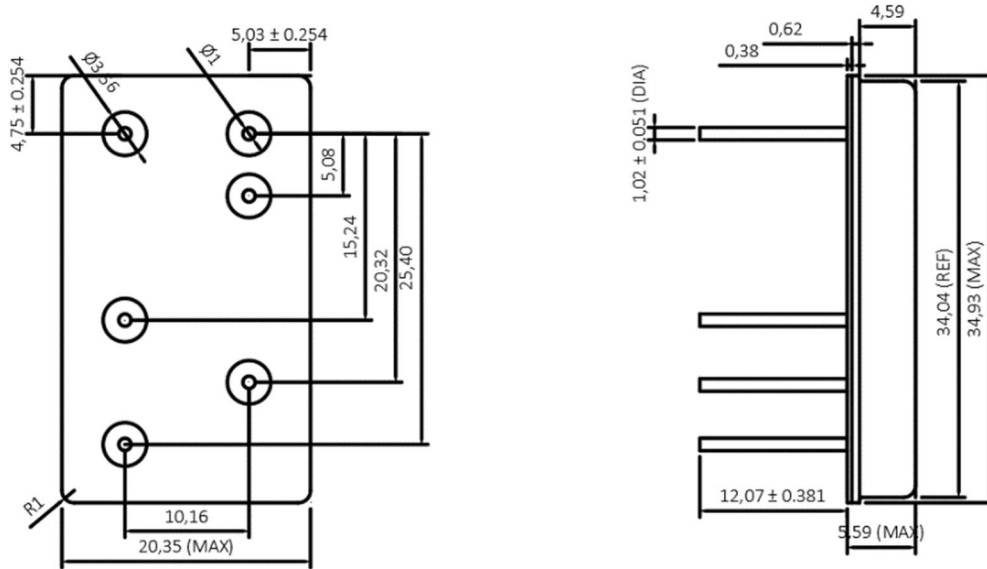
**Figure 6: 32-pin Flatpack**



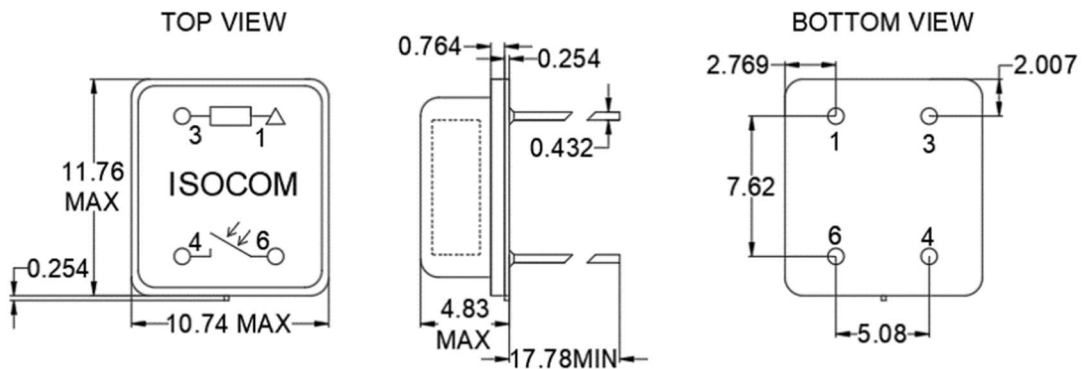
**Figure 8: 14-pin Metal**



**Figure 9: 22-pin Metal**



**Figure 10: 4-pin TO**





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