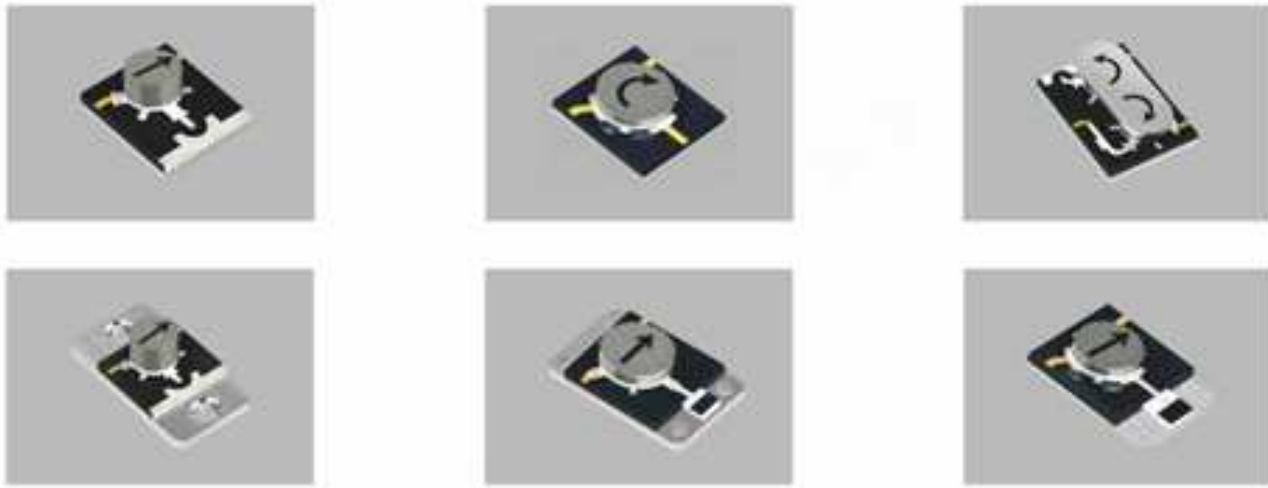




Microstrip Circulators



Features :

- ◇ Small size, Low Height, Light weight
- ◇ Micro circuit and load resistance integrated in one chip for high stability and reduced size.
- ◇ Frequencies from 2.7GHz-40GHz with relative bandwidth 30% max.
- ◇ Microstrip circulator maximum forward power of up to 150W, reverse power of up to 30~40W.
- ◇ All Dimensions are in inches[mm]

Application :

- ◇ Widely used in military applications and communications equipment.

Installation Process :

- ◇ Microstrip circulator can be attached to PCB in 3 ways:
 - Soldering
 - Wire bonding
 - Other methods according to user's process assembly requirements

CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



2.7-3.5GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM2731	2.7-3.1	FULL	0.4	20	1.20	30/3	-20~+65	5.5
CMICM2933	2.9-3.3	FULL	0.4	20	1.20	30/3	-20~+65	5.5
CMICM2735	2.7-3.5	FULL	0.6	18	1.30	30/3	-20~+65	5.5

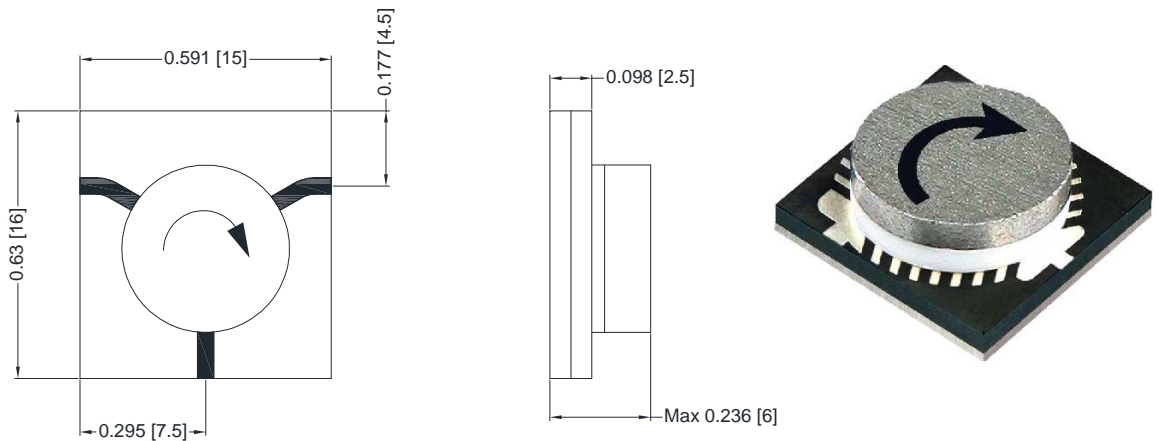


Figure 2-1



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to as CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with its intended use. CMI also reserves the right to change this document without notice. 03/08/2017



3.2-4.0GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM3135	3.1-3.5	FULL	0.4	20	1.20	30/3	-20~+65	4.0
CMICM3236	3.2-3.6	FULL	0.4	20	1.20	30/3	-20~+65	4.0
CMICM3740	3.7-4.0	FULL	0.4	20	1.20	30/3	-20~+65	4.0
CMICM3140	3.1-4.0	FULL	0.6	18	1.30	30/3	-20~+65	4.0

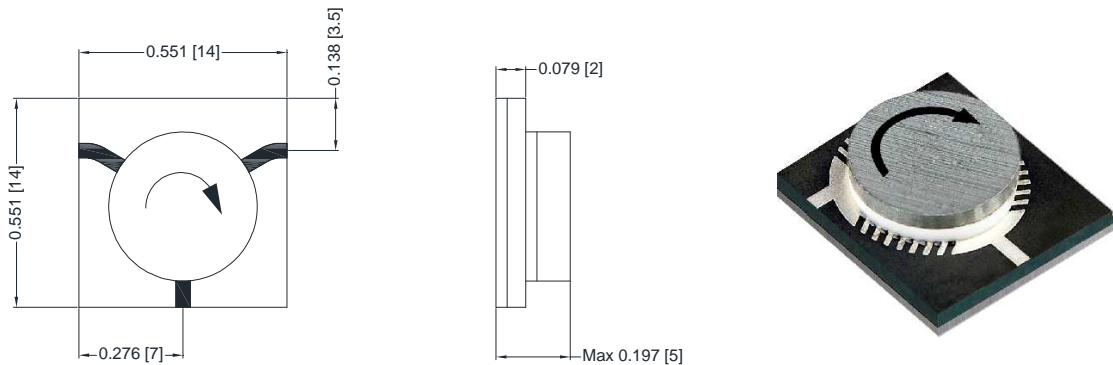


Figure 2-2



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



3.9-5.0GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM3943	3.9-4.3	FULL	0.5	20	1.20	30/3	-40~+70	2.5
CMICM4045	4.0-4.5	FULL	0.5	20	1.20	30/3	-40~+70	2.5
CMICM4447	4.4-4.7	FULL	0.5	20	1.20	30/3	-55~+85	2.5
CMICM4650	4.6-5.0	FULL	0.5	20	1.20	30/3	-55~+85	2.5

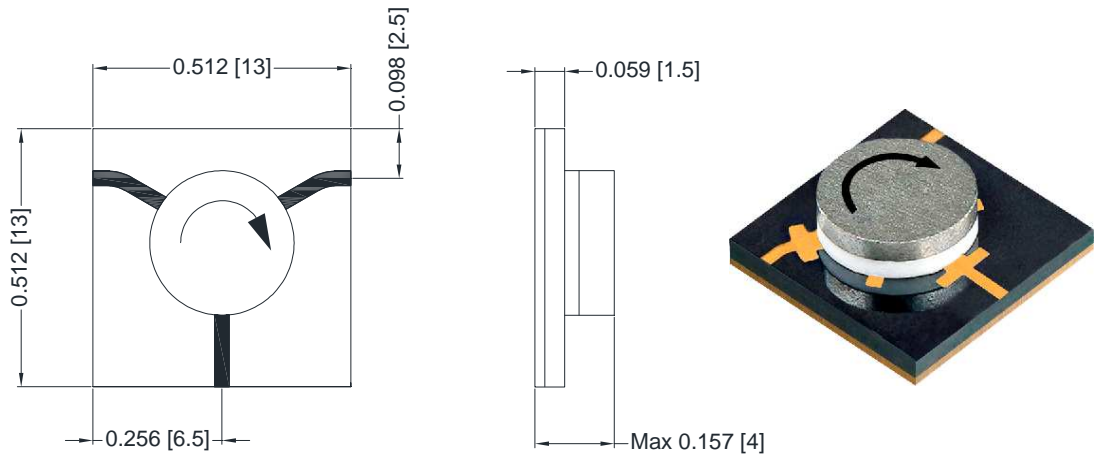
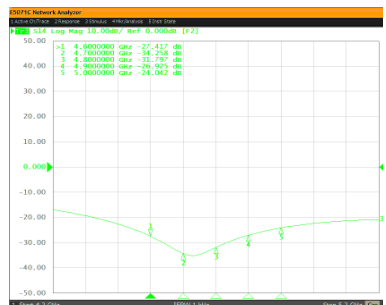
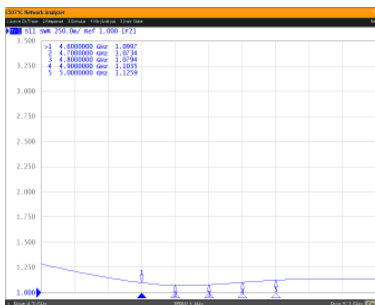


Figure 2-3



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



4.8-5.6GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM4852	4.8-5.2	FULL	0.5	20	1.25	20/3	-55~+85	2.0
CMICM5056	5.0-5.6	FULL	0.5	20	1.25	20/3	-55~+85	2.0

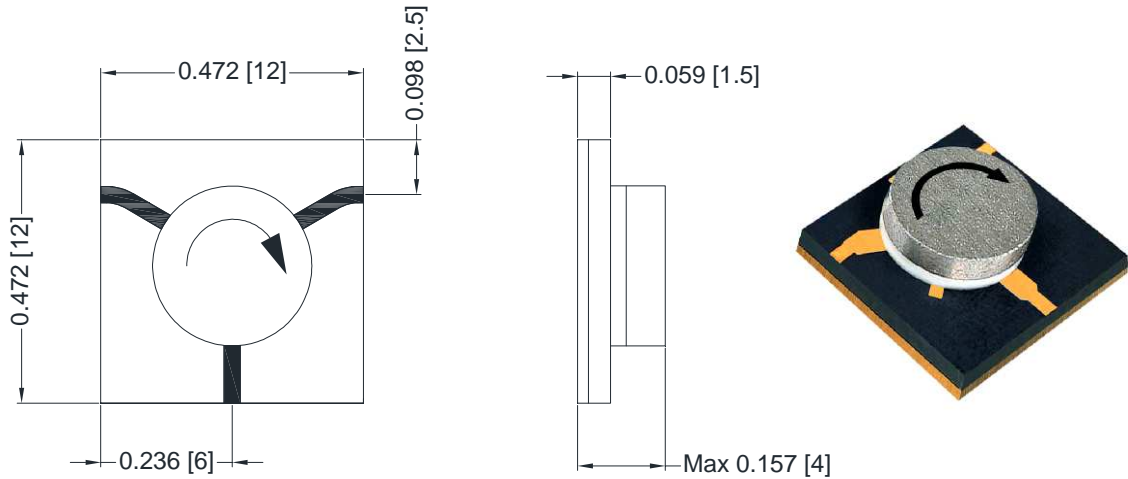


Figure 2-4



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



5.2-7.5GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM5258	5.2-5.8	FULL	0.5	20	1.25	15/3	-55~+85	1.5
CMICM5760	5.7-6.0	FULL	0.5	20	1.25	15/3	-55~+85	1.5
CMICM6065	6.0-6.5	FULL	0.5	20	1.25	15/3	-55~+85	1.5
CMICM6470	6.4-7.0	FULL	0.5	20	1.25	15/3	-55~+85	1.5
CMICM6575	6.5-7.5	FULL	0.6	18	1.30	15/3	-55~+85	1.5

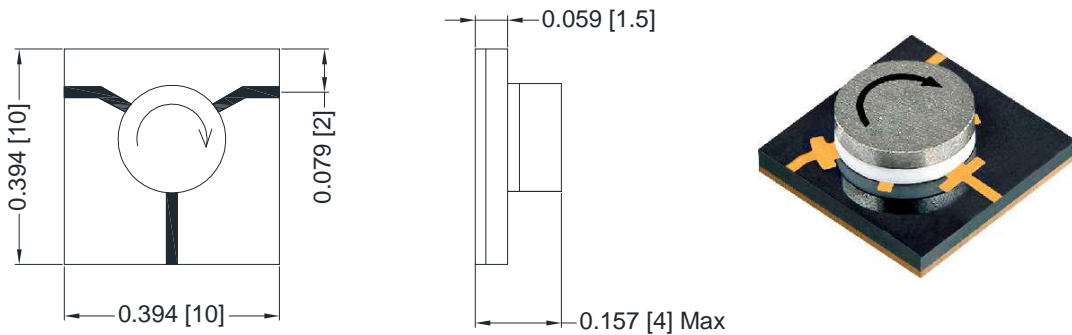
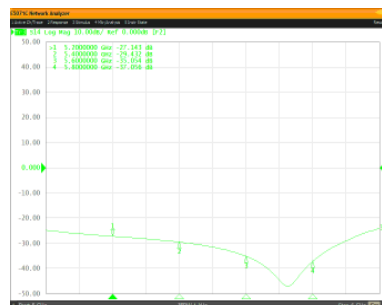
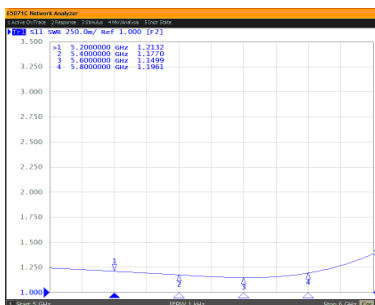


Figure 2-5



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



CORRY MICRONICS, INC **PRODUCT SPECIFICATION**

7.0-9.5GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM7075	7.0-7.5	FULL	0.5	20	1.25	15/3	-55~+85	0.6
CMICM7580	7.5-8.0	FULL	0.5	20	1.25	15/3	-55~+85	0.6
CMICM8085	8.0-8.5	FULL	0.5	20	1.25	15/3	-55~+85	0.6
CMICM7595	7.5-9.5	FULL	0.6	18	1.30	15/3	-55~+85	0.6

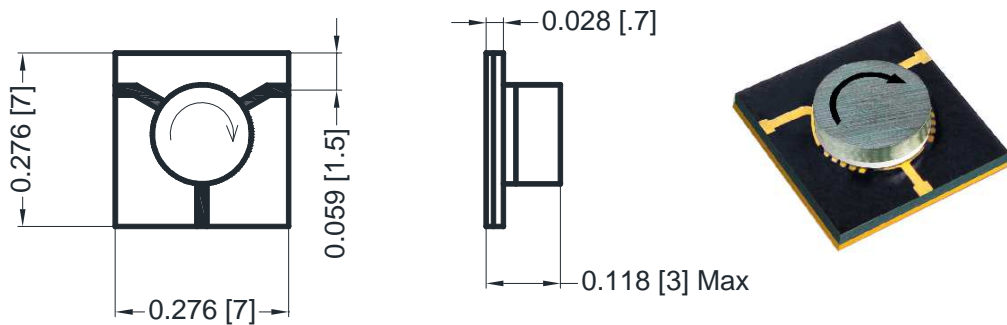
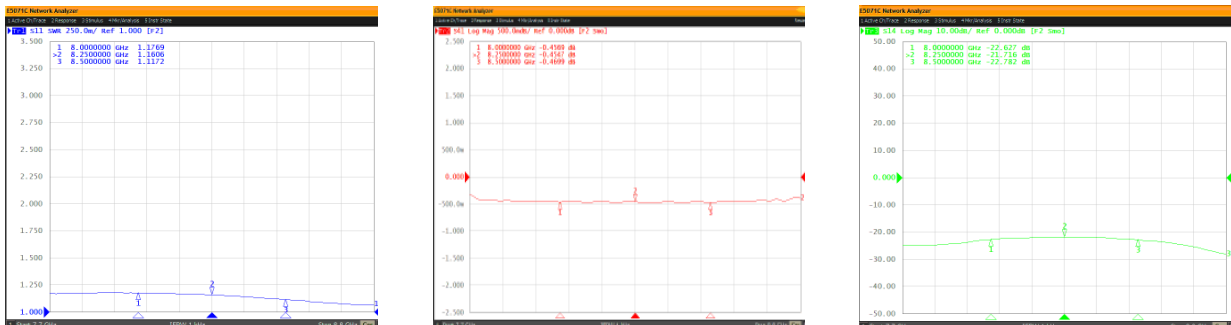


Figure 2-6



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



CORRY MICRONICS, INC **PRODUCT SPECIFICATION**

8.0-12.0GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM90100Y	9.0-10	FULL	0.5	20	1.25	15/3	-55~+85	0.5
CMICM80120Y	8.0-12	FULL	0.6	18	1.35	15/3	-55~+85	0.5

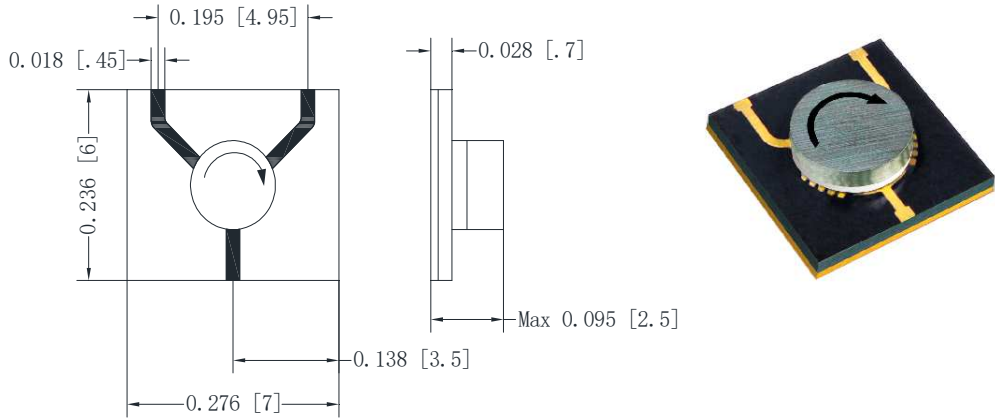
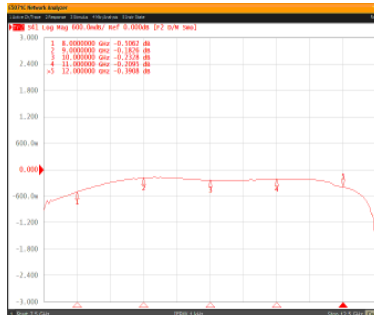
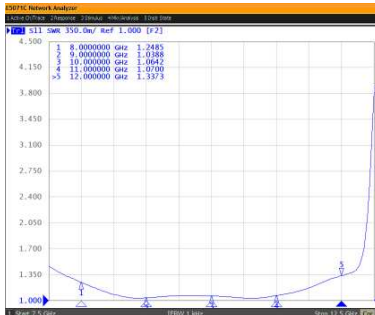


Figure 2-7



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



CORRY MICRONICS, INC PRODUCT SPECIFICATION

8.0-12.0GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM90100	9.0-10.0	FULL	0.5	18	1.25	15/3	-55~+85	0.4
CMICM100110	10.0-11.0	FULL	0.5	18	1.25	15/3	-55~+85	0.4
CMICM105115	10.5-11.5	FULL	0.5	18	1.25	15/3	-55~+85	0.4
CMICM80120A	8.0-12.0	FULL	0.6	15	1.35	15/3	-55~+85	0.4

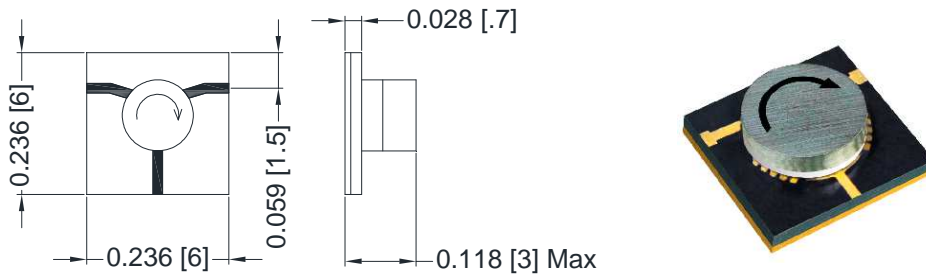
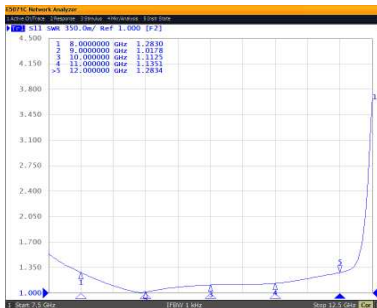


Figure 2-8



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



11.0-18.0GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM110120	11.0-12.0	FULL	0.5	18	1.25	12/3	-55~+85	0.4
CMICM115125	11.5-12.5	FULL	0.5	18	1.25	12/3	-55~+85	0.4
CMICM120130	12.0-13.0	FULL	0.5	18	1.25	12/3	-55~+85	0.4
CMICM130140	13.0-14.0	FULL	0.5	18	1.25	12/3	-55~+85	0.4
CMICM135145	13.5-14.5	FULL	0.5	18	1.25	12/3	-55~+85	0.4
CMICM140150	14.0-15.0	FULL	0.5	18	1.25	12/3	-55~+85	0.4
CMICM145155	14.5-15.5	FULL	0.5	18	1.25	12/3	-55~+85	0.4
CMICM155165	15.5-16.5	FULL	0.5	18	1.25	12/3	-55~+85	0.4
CMICM165175	16.5-17.5	FULL	0.5	18	1.25	12/3	-55~+85	0.4
CMICM155175	15.5-17.5	FULL	0.5	18	1.30	12/3	-55~+85	0.4
CMICM150180	15.0-18.0	FULL	0.6	16	1.25	12/3	-55~+85	0.4

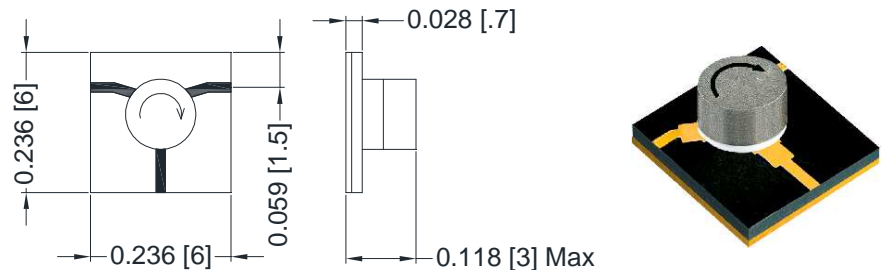


Figure 2-9



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



14.0-40.0GHz Microstrip Circulator

MODEL	FREQUENCY (GHz)	BAND WIDTH	INSERTION LOSS(dB)	ISOLATION (dB)	VSWR	POWER (W) For./Rev.	OPERATING TEMP.RANGE (°C)	WEIGHT (g)
CMICM140145	14.0-15.0	FULL	0.5	17	1.25	12/3	-55~+85	0.3
CMICM145155	14.5-15.5	FULL	0.5	17	1.25	12/3	-55~+85	0.3
CMICM155165	15.5-16.5	FULL	0.5	17	1.25	12/3	-55~+85	0.3
CMICM165175	16.5-17.5	FULL	0.5	17	1.25	12/3	-55~+85	0.3
CMICM155175	15.5-17.5	FULL	0.5	17	1.30	12/3	-55~+85	0.3
CMICM150180	15.0-18.0	FULL	0.6	16	1.35	12/3	-55~+85	0.3
CMICM220240	22.0-24.0	FULL	0.7	18	1.30	12/3	-55~+85	0.3

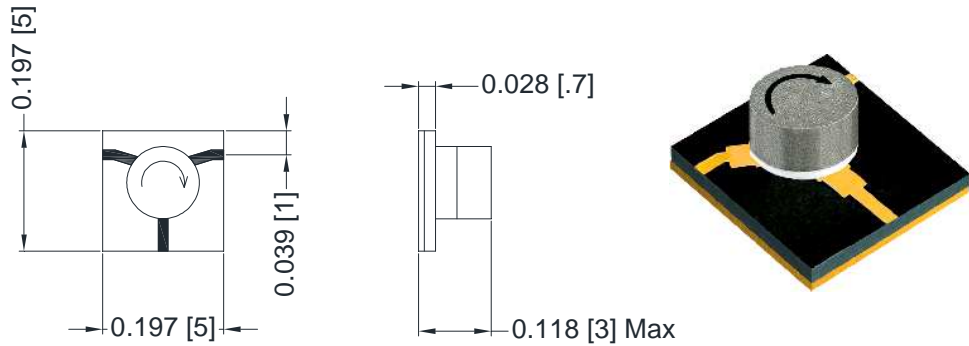


Figure 2-10



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017



CORRY MICRONICS, INC PRODUCT SPECIFICATION

Application Notes

Storage: Store in dry environment (Nitrogen cupboard or drying cupboard).

Handling: In clean environment, manipulate product with dust-free tweezers to avoid damaging the base-plate or scratching the microstrip circuit.

Cleaning: This product can be cleaned in absolute ethanol or scrub the surface with absolute ethanol soaked cotton ball. Do NOT clean it with ultrasonic wave.

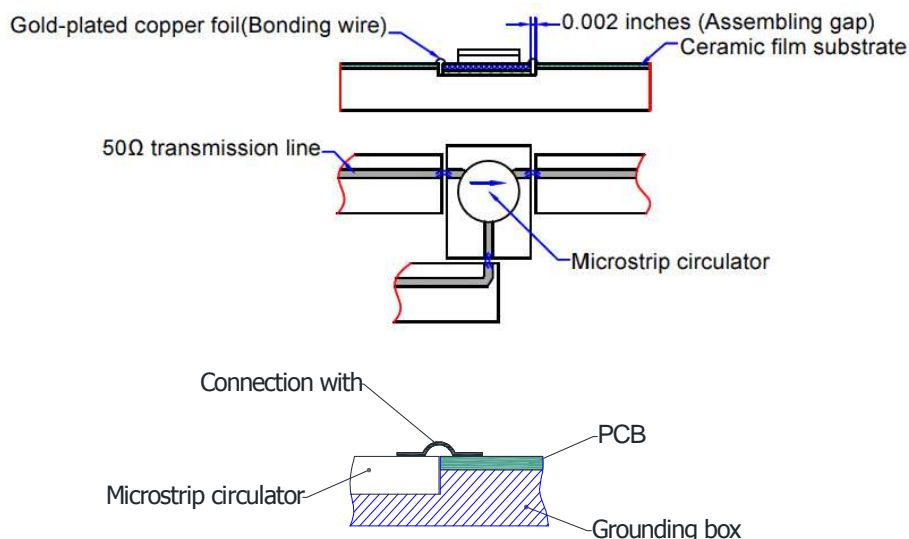
Body Installation Methods:

- 1) Soldering (only recommended for parts up to 5GHz): Recommend using $<183^{\circ}\text{C}$ solder such as Sn63Pb37 soldering paste. Do not leave on hotplate over 210°C for over 30 seconds.
- 2) Conductive epoxy: Spread small amount of conducting adhesive gel uniformly on the installation site. Curing time less than 2 hours (150°C).

Pin connection:

- 1) Soldering: Put the unit on the 120°C hot plate to heat it. Then lap the gold plating arc copper foil connection line to microstrip line with flux. Recommend using 183°C Sn63Pb37 to solder. Soldering time not over 2 seconds.
- 2) Wire bonding: Recommend using $25\mu\text{m}$ gold wire with bonding temp $100\text{-}150^{\circ}\text{C}$ with sphere bonding pressure 30-55gf and carve bonding pressure 15-25gf.

Assembly gap: Should short the product and ceramic wafer gap. Typical value: 0.002-0.006 inches



CALL OUR SALES DEPARTMENT FOR MORE INFORMATION OR VARIATIONS OF THIS PRODUCT.

Corry Micronics, Inc. One Plastics Rd. - Corry, PA 16407
(724) 940-7556 ext. 138 Fax (724) 940-7707 www.cormic.com

Corry Micronics Inc. herein referred to CMI, believes this information to be accurate, but makes no warranties, expressed or implied as to the accuracy of this document. CMI assumes no liability for any injury, loss, damage, direct or consequential arising from the use of our products. User assumes all risk whatsoever in connection with it's intended use. CMI also reserves the right to change this document without notice. 03/08/2017