



## 90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts

### Hybrids Technical Data Sheet

PE2CP1034

#### Features

- 250 watts power
- 20 dB isolation
- 225 MHz to 400 MHz Frequency Range
- Gold plated leads
- 1.2:1 VSWR
- 1.62 inch by 0.56 inch package
- Attach to heat sink by two screws

#### Applications

- Power amplifier
- Mixers
- Power dividers/combiners
- Antenna feeds
- Attenuators
- Switches
- Phase shifters

#### Description

The PE2CP1034 operates from 225 MHz to 400 MHz and can handle 250 watts of power with 20 dB isolation. The package is 1.62 inch by 0.56 inch package and is attached to the heat sink by two screws. The gold plated leads are soldered to the PCB. This 90 degree hybrid has a VSWR of 1.2:1 and an insertion loss of 0.25 dB.

The PE2CP1034 is part of Pasternack's family of 90 degree hybrid couplers in drop-in packages. These couplers feature small drop-in packages that can handle power up to 1000 watts. They are available in both narrow and broad bandwidths. These quadrature hybrids are excellent for any situation to either equally split an input signal into two paths with a 90 degree phase shift between them or to combine two signals while maintaining high isolation between them.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	225		400	MHz
Impedance		50		Ohms
Phase Difference		90		Degrees
Insertion Loss			0.25	dB
Isolation	20			dB
VSWR			1.2:1	
Amplitude Balance		±50		dB
Phase Balance		±5		Degrees
Input Power (CW)			250	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts PE2CP1034](#)



## 90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts

### Hybrids Technical Data Sheet

PE2CP1034

#### Mechanical Specifications

##### Size

Length	1.62 in [41.15 mm]
Width	0.13 in [3.3 mm]
Height	0.56 in [14.22 mm]

##### Configuration

Mechanical Specification Notes:

Finish per MIL-DTL-5541, Type 2, Rev. F, Class 3

#### Environmental Specifications

##### Temperature

Operating Range -55 to 85 deg C

#### Compliance Certifications (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant

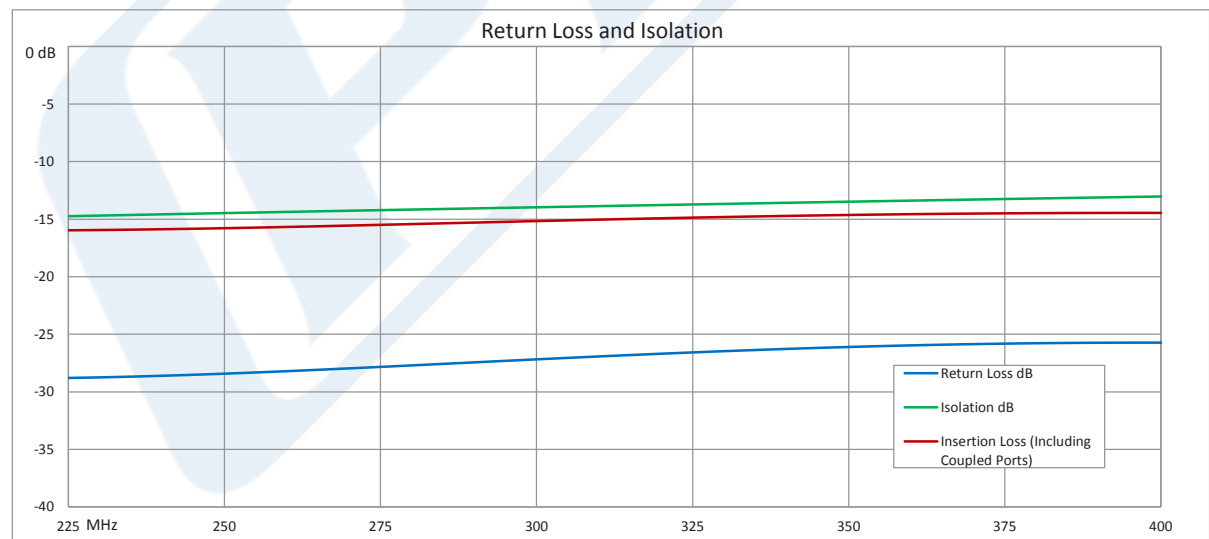
REACH Compliant

12/17/2014

#### Plotted and Other Data

Notes:

#### Typical Performance Data



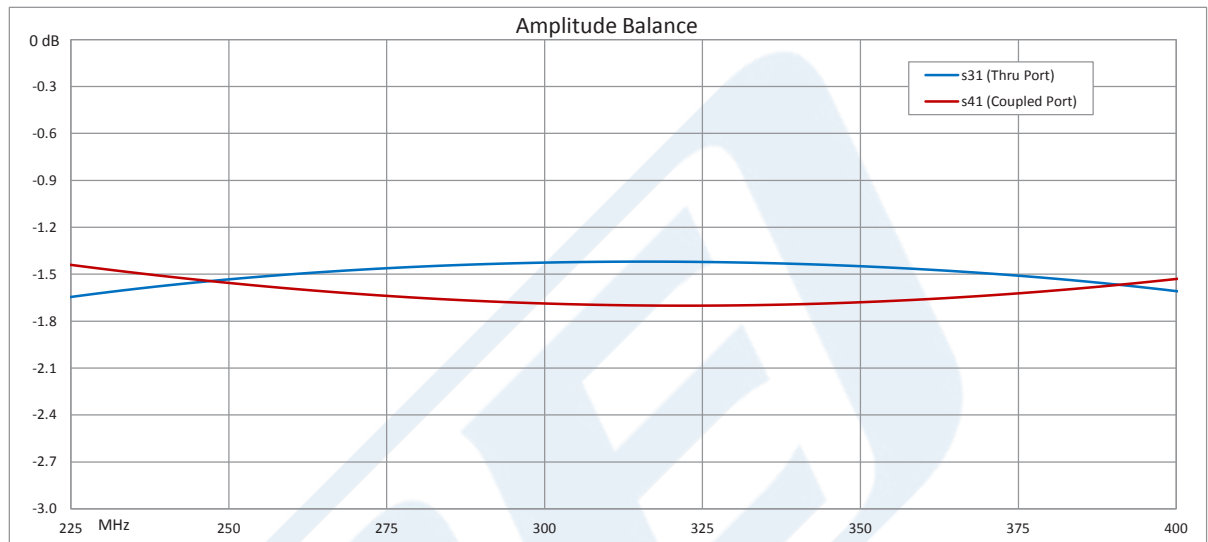
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts PE2CP1034](#)



## 90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts

### Hybrids Technical Data Sheet

PE2CP1034



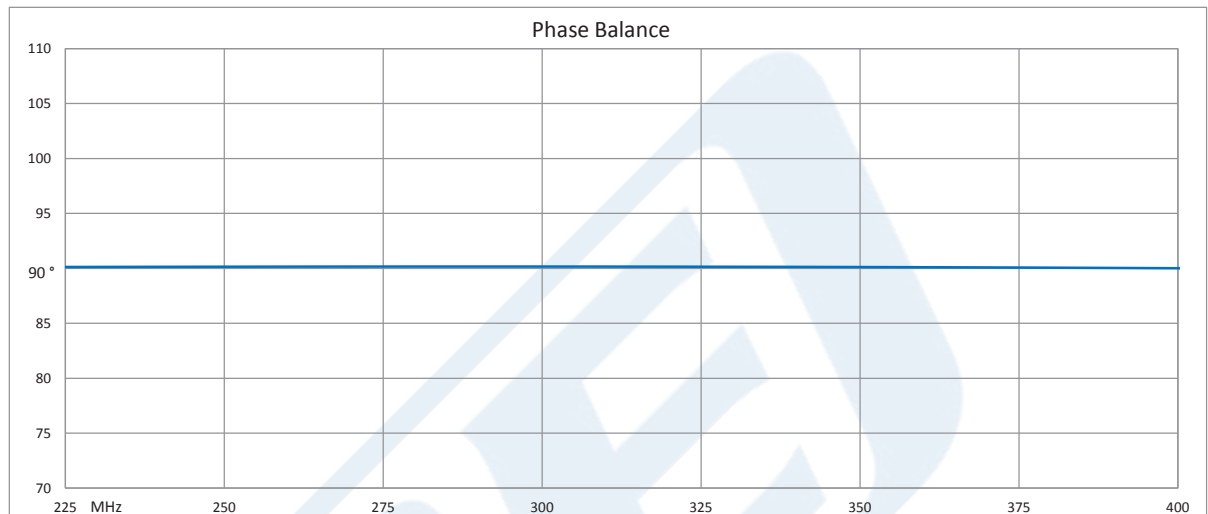
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts PE2CP1034](#)



## 90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts

### Hybrids Technical Data Sheet

PE2CP1034



90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

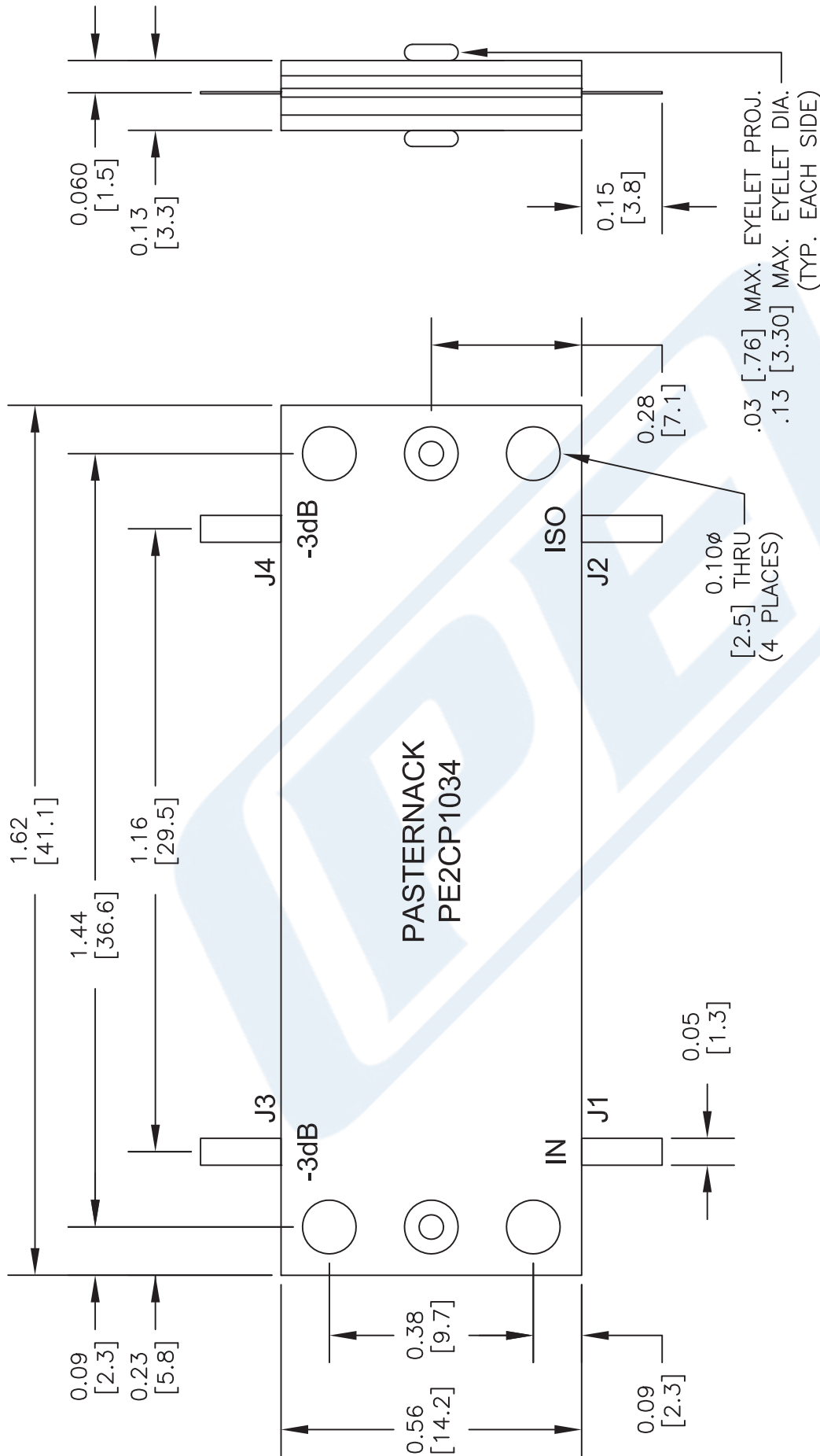
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts PE2CP1034](http://www.pasternack.com/drop-in-coupler-225-400-mhz-250-watts-pe2cp1034-p.aspx)

URL: <http://www.pasternack.com/drop-in-coupler-225-400-mhz-250-watts-pe2cp1034-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE2CP1034 CAD Drawing

90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts



PORT CONFIGURATION				
INPUT	J1	J2	J3	J4
J1	---	ISOLATION	-3dB<0 DEG	-3dB<90 DEG
J2	ISOLATION	---	-3dB<90 DEG	-3dB<0 DEG
J3	-3dB<0 DEG	-3dB<90 DEG	---	ISOLATION
J4	-3dB<90 DEG	-3dB<0 DEG	ISOLATION	---

NOTES:  
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
 3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE  
**PE2CP1034**

**PASTERNAK**  
 THE ENGINEER'S RF SOURCE  
 Pasternack Enterprises, Inc.  
 P.O. Box 16759 | Irvine | CA | 92623  
 Phone: (949) 261-1920 | Fax: (949) 261-7451  
 Website: www.pasternack.com | E-Mail: sales@pasternack.com

FSCM NO. 53919

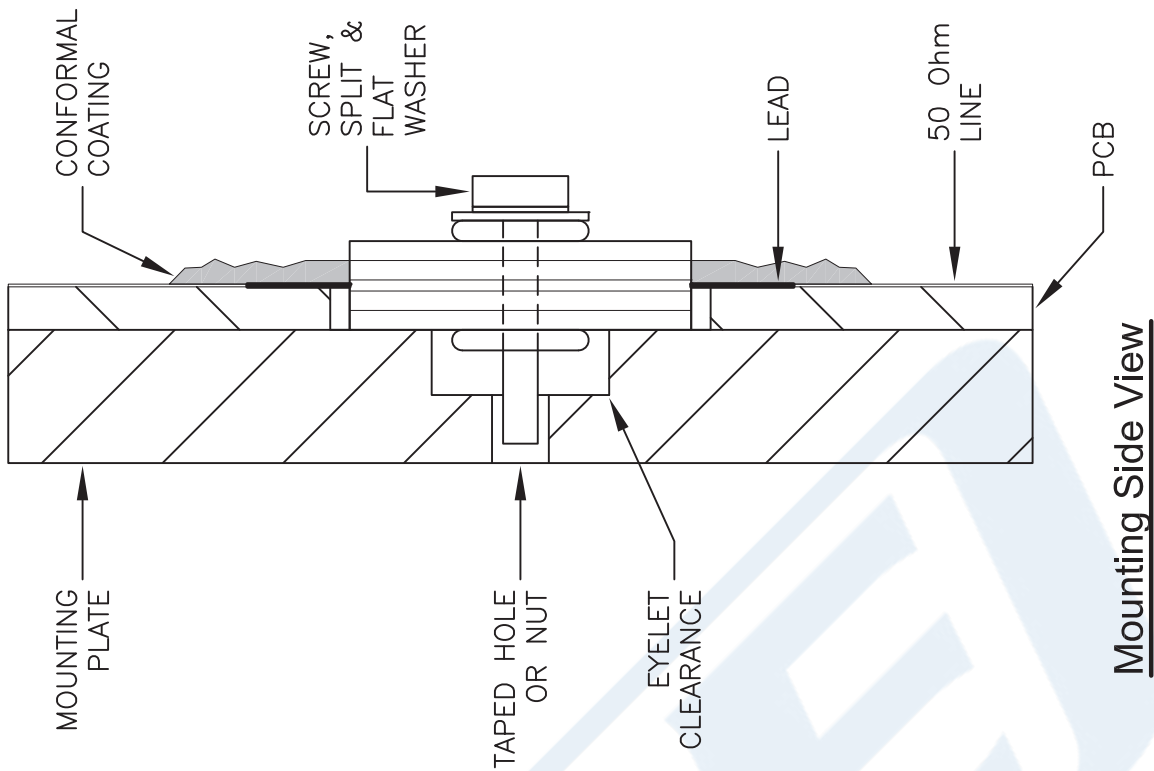
SCALE N/A

SIZE A

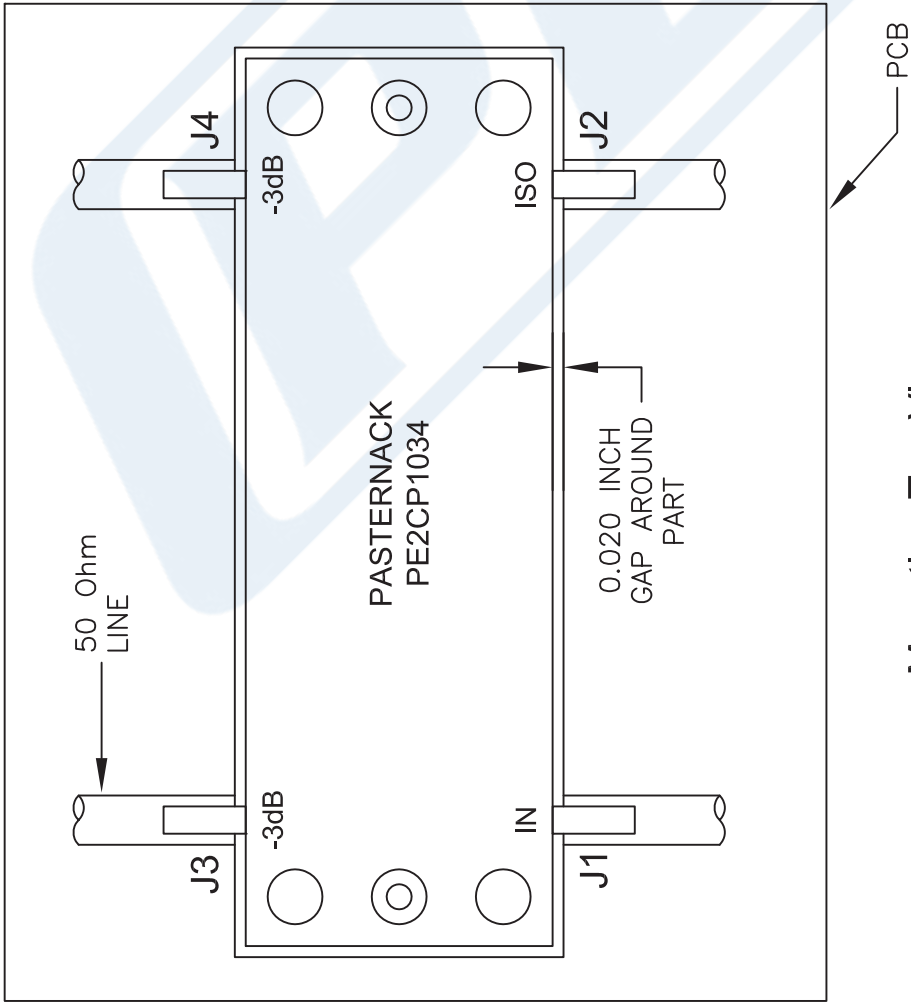
2233

PE2CP1034 CAD Drawing

90 Degree Drop-In Hybrid Coupler From 225 MHz to 400 MHz Rated To 250 Watts



Mounting Side View



Mounting Top View

NOTE:  
1. CONFORMAL COATING IS RECOMMENDED AT THE LEAD / 50 Ohm LINE INTERFACE FOR HIGH POWER APPLICATIONS TO PREVENT VOLTAGE ARCING.  
2. TO INSURE PROPER GROUNDING THE BOTTOM PLATE OF COUPLER MUST LAY FLAT ON MOUNTING SURFACE. PLEASE ALLOW CLEARANCE FOR ALL EYELET PROJECTIONS IN BASE PLATE.  
3. SOLDER LEADS TO 50 Ohm LINES USING LEAD FREE OR Sn63 ALLOY.  
4. TORQUE STAINLESS STEEL SCREW, SPLIT AND FLAT WASHER TO 2.5 in-lbs.

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE  
**PE2CP1034**

**PE PASTERNAK**  
THE ENGINEER'S RF SOURCE  
Pasternack Enterprises, Inc.  
P.O. Box 16759 | Irvine | CA | 92623  
Phone: (949) 261-1920 | Fax: (949) 261-7451  
Website: [www.pasternack.com](http://www.pasternack.com) | E-Mail: [sales@pasternack.com](mailto:sales@pasternack.com)

FSCM NO. 53919

CAD FILE 121415

SCALE N/A

SIZE A

2233