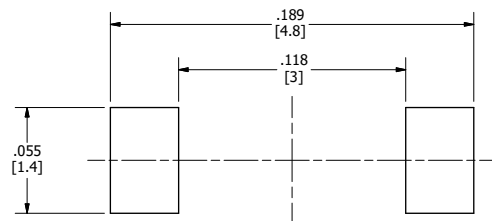
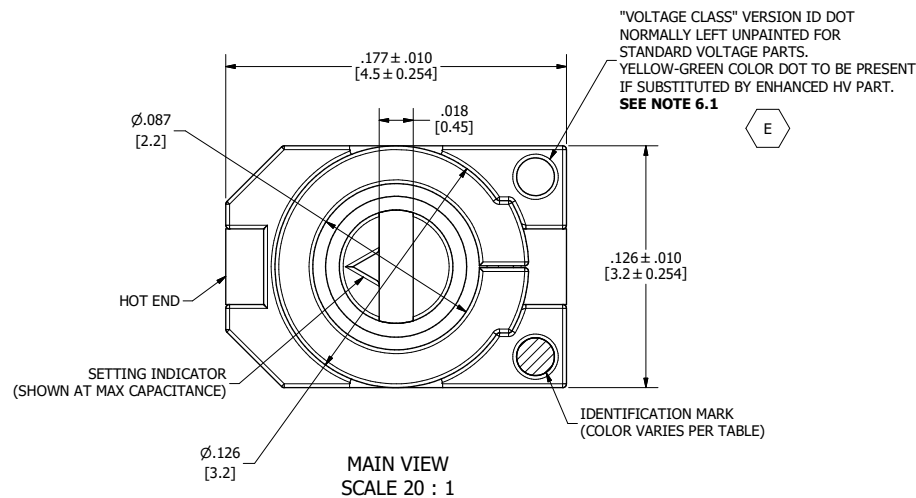


| 4                                  |            |                  |              | 3              |               |                         |
|------------------------------------|------------|------------------|--------------|----------------|---------------|-------------------------|
| CONFIGURATION TABLE (SEE NOTE 6.1) |            |                  |              |                |               |                         |
| PART NUMBER                        | C MIN [pF] | C MAX [pF]       | TC [PPM/°C]  | Q MIN. @ 1 MHz | MARKING COLOR | ALTERNATE COLOR         |
| JZ030                              | 1.5        | 3.0 +50% / -0%   | 0 ± 200      | 500            | BLACK         | BLACK & GREEN           |
| JZ060                              | 2.0        | 6.0 +50% / -0%   | 0 ± 300      | 500            | BLUE          | BLUE & GREEN            |
| JZ100                              | 2.0        | 10.0 +100% / -0% | 0 ± 300      | 500            | N/A           | N/A                     |
| JZ150                              | 3.0        | 15.0 +100% / -0% | 0 ± 500      | 500            | PINK          | PINK & GREEN            |
| JZ200                              | 4.5        | 20.0 +100% / -0% | 0 ± 500      | 500            | RED           | RED & GREEN             |
| JZ300                              | 5.5        | 30.0 +100% / -0% | -1500 ± 1000 | 200            | ORANGE        | ORANGE & GREEN          |
| JZ400                              | 8.0        | 40.0 +100% / -0% | -1500 ± 1000 | 200            | YELLOW        | GREEN OR YELLOW & GREEN |
| JZ500                              | 8.0        | 50.0 +100% / -0% | -1500 ± 1000 | 200            | GREEN         | GREEN & GREEN           |

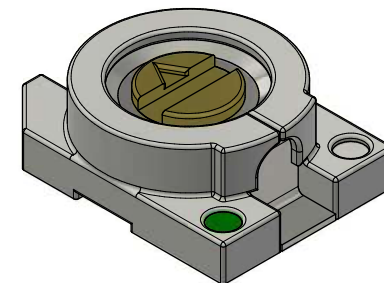
**NOTES:**

1. INTERPRET DRAWING PER ANSI Y14.5M-1994.
2. **[ALTERNATE DIMENSIONS]** ARE IN MILLIMETERS.
3. ELECTRICAL SPECIFICATIONS:
  - 3.1. CAPACITANCE RANGE: *SEE CONFIGURATION TABLE.*
  - 3.2. DC WORKING VOLTAGE AT MAX. RATED CAPACITANCE: 125 [VOLTS].
  - 3.3. DC WITHSTANDING VOLTAGE AT MAX RATED CAPACITANCE: 220 [VOLTS].
  - 3.4. Q FACTOR AT 1 [MHz] AND MAX RATED CAPACITANCE: *SEE CONFIGURATION TABLE.*
  - 3.5. INSULATION RESISTANCE:  $10^{-4}$  [MEGAOHMS] AT 25°C.
  - 3.6. TEMPERATURE COEFFICIENT: *SEE CONFIGURATION TABLE.*
  - 3.7. SELF RESONANT FREQUENCY MEASURED AT MAX RATED CAPACITANCE
4. MECHANICAL SPECIFICATIONS:
  - 4.1. TUNING TORQUE: 0.14 [in·oz] TO 1.00 [in·oz].
  - 4.2. ALL PARTS FURNISHED ON 12 [mm] TAPE AND REEL;  
1000 PIECES PER REEL.
5. ENVIRONMENTAL:
  - 5.1. OPERATING TEMPERATURE: -40°C TO +85°C.
  - 5.2. RoHS COMPLAINT.
6. MISCELLANEOUS:
  - 6.1. IN ORDER TO PROVIDE THE HIGHEST LEVELS OF SERVICE, KNOWLES RESERVES THE RIGHT TO SUPPLY EQUIVALENT PRODUCTS WHERE SPECIFICATIONS ARE EQUIVALENT OR ENHANCED. THIS INCLUDES SUBSTITUTION OF J2500 TO J2400 AND HV SUFFIX FOR STANDARDS PARTS.

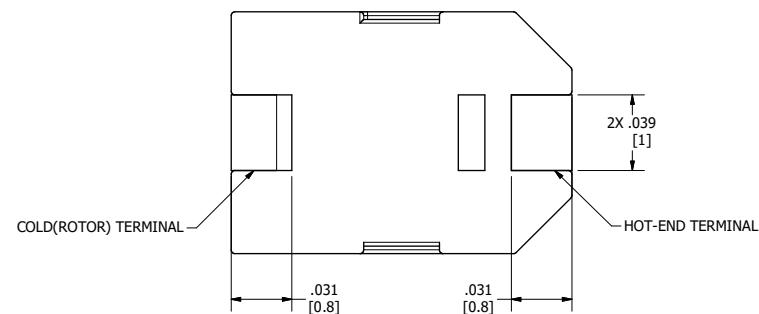
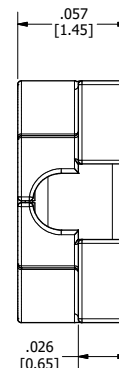


SUGGESTED FOOTPRINT  
SOLDER PASTE THICKNESS OF 0.15 [mm] RECOMMENDED  
SCALE 20 : 1

| 2    |      |     | 1                                                                   |             |             |
|------|------|-----|---------------------------------------------------------------------|-------------|-------------|
|      |      |     | REVISION HISTORY                                                    |             |             |
| ECO# | ZONE | REV | DESCRIPTION                                                         | DRAWN       | APPROVED    |
|      |      | C   | REDRAWN                                                             | AS\09/17/09 | AG          |
| 1392 | ALL  | D   | JZ500 ADDED; UPDATED TO CURRENT STANDARDS AND LATEST SPECIFICATIONS | EC\11/26/14 | TD\12/04/14 |
| 1474 | TAG  | E   | NOTE 6.1 ADDED. SUBSTITUTIONS OPTIONS DETAILED                      | EC\12/09/15 | TD\11/02/16 |
| 1607 | TAG  | F   | SPECS MATCHED TO CURRENT SALES BROCHURES (NOTES 3.2 & 5.1)          | EC\05/12/17 |             |
|      | ALL  | G   | REMOVED JZ080                                                       | MI\03/23/22 | MI\03/23/22 |



ISO VIEW  
SCALE 20 : 1



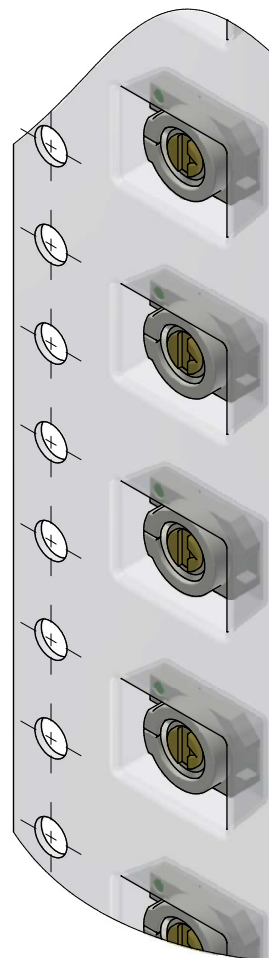
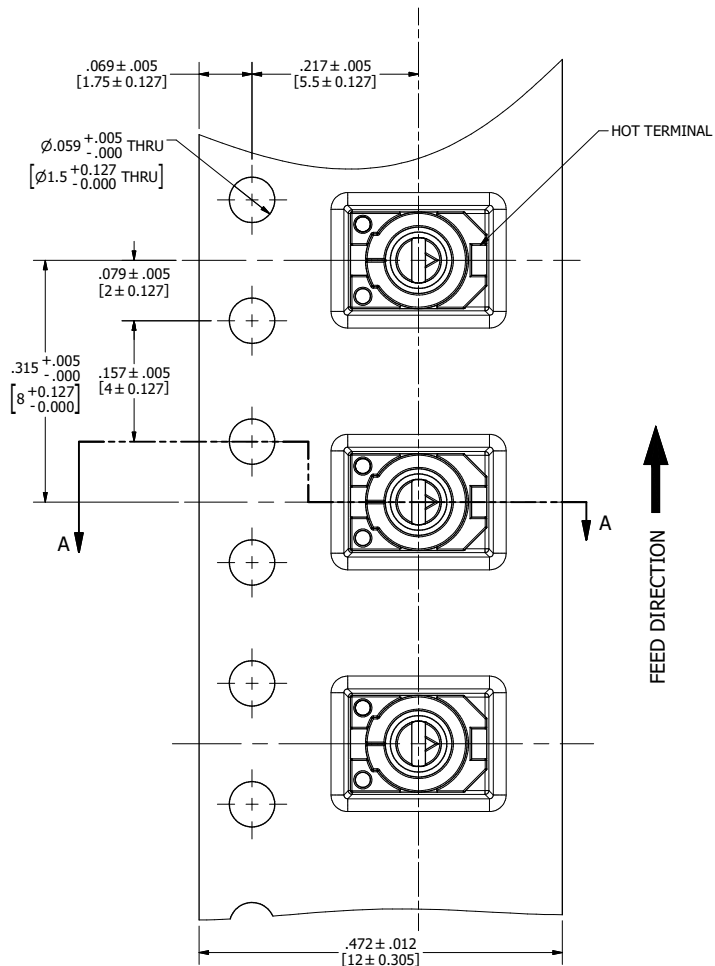
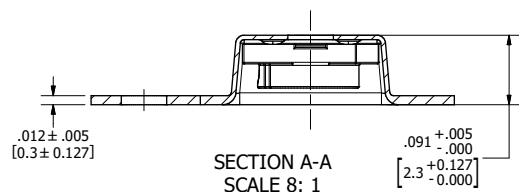
|                                                                                       |  |                |  |                      |  |                |  |            |  |                                                                                                                                                             |  |                      |  |              |  |
|---------------------------------------------------------------------------------------|--|----------------|--|----------------------|--|----------------|--|------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|--|--------------|--|
| MATERIAL                                                                              |  | N/A            |  | DRAWN                |  | E. CONTRERAS   |  | 11/26/2013 |  |  Knowles Voltronics<br>2777 Route 20 East<br>Cazenovia, New York 13035 |  |                      |  |              |  |
| FINISH                                                                                |  | N/A            |  | CHECKED              |  | T. BYRNE       |  | 12/10/2014 |  |                                                                                                                                                             |  |                      |  |              |  |
| TOLERANCES                                                                            |  | SURFACE FINISH |  | QUALITY ASSURANCE    |  | G. SATTERFIELD |  | 12/12/2014 |  | OUTLINE DRAWING FOR JZxxx SERIES                                                                                                                            |  |                      |  |              |  |
| .XX ±<br>.XXX ±.008<br>.XXXX ±<br>X°±1° X.X°±0.1°                                     |  | 32 ✓           |  | MANUFACTURING        |  | F. KHALIFEH    |  | 12/1/2014  |  |                                                                                                                                                             |  |                      |  |              |  |
| 3RD ANGLE PROJECTION                                                                  |  |                |  | ENGINEERING          |  | T. DOLAN       |  | 12/4/2014  |  |                                                                                                                                                             |  |                      |  |              |  |
|  |  |                |  | CUSTOMER PART NUMBER |  |                |  | SIZE<br>C  |  | CAGE CODE<br>55153                                                                                                                                          |  | PART NUMBER<br>JZxxx |  | REV<br>G     |  |
| INVENTOR 2013 GENERATED DWG                                                           |  |                |  |                      |  | SCALE          |  | PER VIEW   |  | DWG NO.                                                                                                                                                     |  | V-7531               |  | SHEET 1 OF 2 |  |

4

3

2

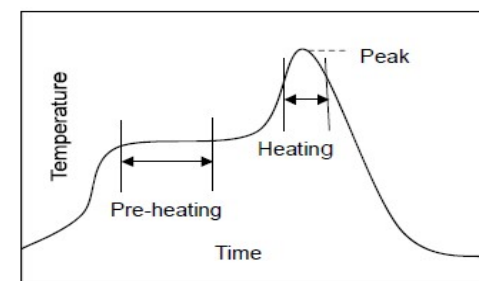
1



### HANDLING/STORAGE PRECAUTIONS:

- DO NOT USE FLOW SOLDERING.
- DO NOT APPLY SOLDER OR FLUX TO ANY PARTS BUT TERMINAL
- WHEN USING SOLDERING IRON, THE SOLDERING IRON SHOULD NOT COME IN CONTACT WITH THE HOUSING OF THE CAPACITOR.
- PLEASE REFER TO SOLDER RECOMMENDATIONS CHART.
- NO-CLEAN METHOD IS PREFERRED OVER SOLVENT WASHING. EXPERIMENT WITH SAMPLES BEFORE WASHING BY SOLVENTS.
- DO NOT APPLY LOCKING SPRAY OR PAINT TO TRIMMER.
- ELECTRIC SPECIFICATIONS MAY BE AFFECTED ADVERSELY.
- PRODUCT CONTAINS LUBRICATION OIL. LUBRICATION LEAKS WILL NOT AFFECT PRODUCT SOLDERABILITY.
- USE OF CERAMIC SCREWDRIVERS IS RECOMMENDED FOR TUNING.
- DO NOT APPLY AXIAL LOAD DURING TUNING IN EXCESS OF 0.3[lbf]/1.5[N].
- KEEP PARTS OUT OF DIRECT SUNLIGHT EXPOSURE. STORE PARTS IN DUST-FREE ENVIRONMENT.

### SOLDERING RECOMMENDATIONS



#### STANDARD LEAD-FREE SOLDERING PROFILE

| STAGE          | SAC305 SOLDER                                            | EUTECTIC SOLDER                                          |
|----------------|----------------------------------------------------------|----------------------------------------------------------|
| PRE-HEATING    | TEMPERATURE: 150[°C] - 180[°C]<br>TIME: 60 - 120 SECONDS | TEMPERATURE: 120[°C] - 150[°C]<br>TIME: 60 - 120 SECONDS |
| HEATING        | TEMPERATURE: 220[°C] MIN.<br>TIME: 30 - 60 SECONDS       | TEMPERATURE: 183[°C] MIN.<br>TIME: 30 - 60 SECONDS       |
| PEAK HEAT      | TEMPERATURE: 265[°C]<br>TIME: 3 SECONDS MAX              | TEMPERATURE: 265[°C]<br>TIME: 3 SECONDS MAX              |
| REFLOW CYCLES  | 2 TIMES MAX                                              | 2 TIMES MAX                                              |
| SOLDERING IRON |                                                          |                                                          |
| SPEC           | TEMPERATURE 400[°C] MAX<br>TIME: 3 SECONDS MAX           |                                                          |



VOLTRONICS  
THE TRIMMER CAPACITOR COMPANY  
2250 NORTHWOOD DRIVE  
SALISBURY, MARYLAND 21801

| SIZE  | CAGE CODE | PART NUMBER | REV |
|-------|-----------|-------------|-----|
| C     | 55153     | JZxxx       | G   |
| SCALE | PER VIEW  | DWG NO.     |     |
|       |           | V-7531      |     |

SHEET 2 OF 2