

Continental Device India Limited

An ISO/TS16949 and ISO 9001 Certified Company



PNP SILICON PLANAR EPITAXIAL TRANSISTORS



BC212, A, B BC213, A, B, C BC214, B, C

TO-92 Plastic Package

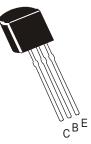
Silicon Small Signal General Purpose Amplifier

ABSOLUTE MAXIMUM RATINGS (T_a=25°C unless specified otherwise)

| DESCRIPTION | SYMBOL | BC212 | BC213 | BC214 | UNITS |
|---|-----------------------------------|-------|-------------|-------|--------|
| Collector Emitter Voltage | V _{CEO} | 50 | 30 | 30 | V |
| Collector Base Voltage | V _{CBO} | 60 | 45 | 45 | V |
| Emitter Base Voltage | V _{EBO} | | 5 | | V |
| Collector Current Continuous | Ι _C | | 100 | | mA |
| Power Dissipation @ T _a =25°C | P _D | | 350 | | mW |
| Derate Above 25°C | | | 2.8 | | mW/ ºC |
| Power Dissipation @ T _c =25ºC | P _D | | 1 | | W |
| Derate Above 25ºC | | | 8 | | mW/ °C |
| Operating And Storage Junction Temperature Range | T _j , T _{stg} | | -55 to +150 | | °C |

THERMAL RESISTANCE

| Junction to Ambient in free air | R _{th (j-a)} | 357 | °C/W |
|---------------------------------|-----------------------|-----|------|
| Junction to case | R _{th (j-c)} | 125 | °C/W |



BC212, A, B BC213, A, B, C BC214, B, C

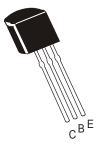
TO-92 Plastic Package

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

| DESCRIPTION | SYMBOL | TEST CONDITION | MIN | ТҮР | MAX | UNITS |
|--------------------------------------|----------------------|--|-----|------|------|-------|
| Collector Emitter Voltage | V _{CEO} | I _C =2mA,I _B =0 | | | | |
| BC212 | | | 50 | | | V |
| BC213, BC214 | | | 30 | | | V |
| | | | | | | |
| Collector Base Voltage | V _{CBO} | I _C =10uA.I _E =0 | | | | |
| BC212 | | | 60 | | | V |
| BC213, BC214 | | | 45 | | | V |
| Emitter Base Voltage | V _{EBO} | I _E =10uA, I _C =0 | 5 | | | V |
| Collector Cut off Current | I _{CBO} | V _{CB} =30V,I _E =0 | | | 15 | nA |
| Emitter Cut off Current | I _{EBO} | V _{EB} =4V, I _C =0 | | | 15 | nA |
| DC Current Gain | | | | | | |
| BC212, BC213 | h _{FE} | I _C =10uA,V _{CE} =5V | 40 | | | |
| BC214 | | | 100 | | | |
| BC212 | h _{FE} | I _C =2mA,V _{CE} =5V | 60 | | | |
| BC213 | | | 80 | | | |
| BC214 | | | 140 | | 600 | |
| | | | | 100 | | |
| BC212, BC214 | h _{FE} | I _C =100mA,V _{CE} =5V* | | 120 | | |
| BC213 | | | | 140 | | |
| Collector Emitter Saturation Voltage | V _{CE(sat)} | I _C =10mA,I _B =0.5mA | | 0.10 | | V |
| | | I _C =100mA,I _B =5mA* | | 0.25 | 0.6 | V |
| Base Emitter Saturation Voltage | V _{BE(sat)} | I _C =100mA,I _B =5mA* | | 1.00 | 1.4 | V |
| Base Emitter On Voltage | $V_{BE(on)}$ | I _C =2mA,V _{CE} =5V | 0.6 | 0.62 | 0.72 | V |

*Pulse Condition: Pulse Width = 300μ s, Duty Cycle = 2%.

PNP SILICON PLANAR EPITAXIAL TRANSISTORS



BC212, A, B BC213, A, B, C BC214, B, C

TO-92 Plastic Package

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

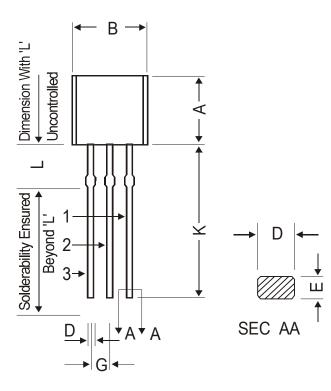
DYNAMICS CHARACTERISTICS

| DESCRIPTION | SYMBOL | TEST CONDITION | MIN | ТҮР | MAX | UNITS |
|---------------------------|-----------------|--|-----|-----|-----|-------|
| Transition Frequency | | | | | | |
| BC212 | f _T | I _C =10mA, V _{CE} =5V | | 280 | | MHz |
| BC213 | | f=50MHz | | 360 | | MHz |
| BC214 | | | | 320 | | MHz |
| Output Capacitance | C _{ob} | V _{CB} =10V, I _E =0 | | | 6 | pF |
| Noise Figure | | | | | | |
| BC212, BC213 | NF | I _C =200uA, V _{CE} =5V | | | 10 | dB |
| | | $R_s=2K\Omega f=1KHz$ | | | | |
| | | f=200Hz | | | | |
| BC214 | NF | I _C =200uA, V _{CE} =5V | | | 2 | dB |
| | | R _s =2KΩ f=30Hz | | | | |
| | | to 15KHz | | | | |
| Small Signal Current Gain | | | | | | |
| BC212 | h _{fe} | I _C =2mA, V _{CE} =5V | 60 | | | |
| BC213 | | f=1KH _z | 80 | | | |
| BC214 | | | 140 | | | |
| | | | | | | |
| BC212A, BC213A | h _{fe} | I _C =2mA, V _{CE} =5V | 100 | | 300 | |
| BC212B, BC213B, BC214B | | f=1KH _z | 200 | | 400 | |
| BC213C, BC214C | | | 350 | | 600 | |

*Pulse Condition: Pulse Width = $300\mu s$, Duty Cycle = 2%.

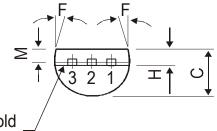
BC212, A, B BC213, A, B, C BC214, B, C

TO-92 Plastic Package

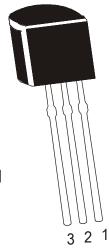


| DIM | MIN. | MAX. | | | |
|-----|-------|-------|--|--|--|
| А | 4.32 | 5.33 | | | |
| В | 4.45 | 5.20 | | | |
| С | 3.18 | 4.19 | | | |
| D | 0.41 | 0.55 | | | |
| E | 0.35 | 0.50 | | | |
| F | 5 DEG | | | | |
| G | 1.14 | 1.40 | | | |
| Н | 1.20 | 1.40 | | | |
| K | 12.70 | | | | |
| L | 1.982 | 2.082 | | | |
| М | 1.03 | 1.20 | | | |

All dimensions are in mm







PIN CONFIGURATION

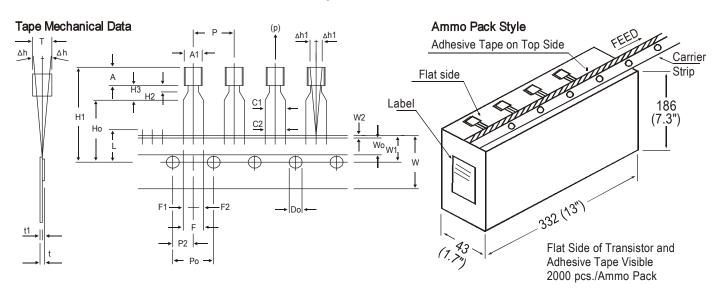
- 1. EMITTER
- 2. BASE
- 3. COLLECTOR

The TO-92 Package , Tape and Ammo Pack drawings are correct as on the date of issue/revision of this Data Sheet. The currently valid dimensions and information, may please be confirmed from the TO-92 Drawing in the Packages and Packing Section of the Product Catalogue.

Packing Details

| PACKAGE | STANDARD PACK | | INNER CARTON BOX | | OUTER CARTON BOX | | |
|------------|---------------|----------------|-------------------|-----------|-------------------|-----|----------|
| | Details | Net Weight/Qty | Size Qty | | Size | Qty | Gr Wt |
| TO-92 Bulk | 1K/polybag | 200 gm/1K pcs | 3" x 7.5" x 7.5" | 5K | 17" x 15" x 13.5" | 80K | 23 kgs |
| TO-92 T&A | 2K/ammo box | 645 gm/2K pcs | 12.5" x 8" x 1.8" | 2K | 17" x 15" x 13.5" | 32K | 12.5 kgs |

TO-92 Tape and Ammo Pack



All dimensions are in mm

| Image: ConstructionMin.NOM.MAX.TOL.BODY WIDTHA14.04.8NOTESBODY HEIGHTA4.85.21BODY THICKNESST3.94.21.0PITCH OF COMPONENTP12.7±1.02.03*1FEED HOLE PITCHPo12.7±0.32.0*2 FEED HOLE CENTRE TO COMPONENT CENTREP26.35±0.43. Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.*3 COMPONENT ALIGNMENT SIDE VIEW *4 COMPONENT ALIGNMENT FRONT VIEW HOLD-DOWN TAPE WIDTH Δh 01.0HOLD-DOWN TAPE WIDTH HOLD-DOWN TAPE POSITIONW20.5±0.2 +0.55. A tape trailer, having at least three feed holes are provided after the last component in a tape.HOLD-DOWN TAPE POSITIONW20.5±0.2 +0.55. A tape trailer, having at least three feed holes are provided after the last component in a tape.HOLD-DOWN TAPE POSITIONW20.5±0.2 +0.55. A tape trailer, having at least three feed holes are provided after the last component in a tape.HOLD-DOWN TAPE POSITIONW20.5±0.2 +0.55. Splices should not interfere with the sprocket feed holes.LEAD WIRE CLINCH HEIGHT LEAD TO - LEAD DISTANCEL11.012.7 +0.414.5STAND OFF CLINCH HEIGHTH20.451.45 +0.4*1 Cumulative pitch error 1.0 mm/20 pitch *3 At top of body*1 CLINCH HEIGHT LEAD PARALLELISMH20.451.45 +0.2 </th <th></th> <th></th> <th colspan="2">SPECIFICATION</th> <th>ON</th> <th></th> | | | SPECIFICATION | | ON | | |
|---|-----------------------------------|---------|---------------|------|------|-------|---|
| BODY HEIGHTA4.85.21. Maximum alignment deviation between leads will not to be greater than 0.2mm.PITCH OF COMPONENTP12.7± 1.02. Maximum non-cumulative variation between tape feed holes shall not exceed 1 mm in 20 pitches.*1 FEED HOLE PITCHPo12.7± 0.32. Maximum non-cumulative variation between tape feed holes shall not exceed 1 mm in 20 pitches.*2 FEED HOLE CENTRE TO COMPONENT CENTREP26.35± 0.43. Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.*3 COMPONENT ALIGNMENT SIDE VIEW *4 COMPONENT ALIGNMENT FRONT VIEW HOLD-DOWN TAPE WIDTH $\triangle h$ 01.0*0.11.8± 0.5± 0.25. A tape trailer, having at least three (3) consecutive missing components in a tape.HOLD-DOWN TAPE WIDTH HOLE POSITIONW20.5± 0.25. A tape trailer, having at least three feed holes are provided after the last component in a tape.HOLD-DOWN TAPE POSITION LEAD VIRE CLINCH HEIGHT LEAD - TO - LEAD DISTANCEL11.0± 0.2*5 TOTAL TAPE THICKNESS LEAD - TO - LEAD DISTANCEF1, F22.54+ 0.4 - 0.1*1 Cumulative pitch error 1.0 mm/20 pitch *3 to po foody*5 TAND OFF CLINCH HEIGHT LEAD PARALLELISM[C1 - C2]0.451.45*1 Cumulative pitch error 1.0 mm/20 pitch *3 At top of body | ITEM | SYMBOL | MIN. | NOM. | MAX. | TOL . | |
| BODY THICKNESST3.94.2BODY THICKNESST3.94.2PITCH OF COMPONENTP12.7 ± 1.0 *1 FEED HOLE PITCHPo12.7 ± 0.3 *2 FEED HOLE CENTRE TO COMPONENT CENTREP26.35 ± 0.4 DISTANCE BETWEEN OUTER LEADSF5.08 -0.2 *3 COMPONENT ALIGNMENT SIDE VIEW HOLD-DOWN TALIGNMENT FRONT VIEW HOLD POSITION Δh 01.0*4 COMPONENT ALIGNMENT FRONT VIEW HOLD-DOWN TAPE WIDTH Δh 01.0HOLD-DOWN TAPE WIDTH HOLE POSITIONW20.5 ± 0.2 *5 TOTAL TAPE THICKNESS EED HOLE DIAMETERL11.0FEED HOLE DIAMETER LEAD TO - LEAD DISTANCEF1, F22.54*5 TOTAL TAPE THICKNESS LEAD - TO - LEAD DISTANCEF1, F2*5 TAND OFF CLINCH HEIGHTH20.45LEAD PARALLELISM[C1 - C2]0.22 | BODY WIDTH | A1 | 4.0 | | 4.8 | | NOTES |
| BODY THICKNESST3.94.2leads will not to be greater than 0.2mm.PITCH OF COMPONENTP12.7± 1.02. Maximum non-cumulative variation between tape feed holes shall not exceed 1 mm in 20 pitches.**2 FEED HOLE CENTRE TO COMPONENT CENTREP26.35± 0.43. Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.**3 COMPONENT ALIGNMENT SIDE VIEW LEADS Δh 01.01.34.2**3 COMPONENT ALIGNMENT FRONT VIEW HOLD-DOWN TAPE WIDTH Δh 01.01.34.0**4 COMPONENT ALIGNMENT FRONT VIEW HOLD-DOWN TAPE WIDTH Δh 01.04.4. There will be no more than three (3) consecutive missing components in a tape.HOLD-DOWN TAPE POSITION LEAD WIRE CLINCH HEIGHTW20.5± 0.25. A tape trailer, having at least three feed holes are provided after the last component in a tape.HOLD-DOWN TAPE POSITION LEAD VIRE CLINCH HEIGHTU11.0± 0.25. On the sproket feed holes.**5 TOTAL TAPE THICKNESS LEAD - TO - LEAD DISTANCEL11.0± 0.2*1 Cumulative pitch error 1.0 mm/20 pitch **3 to po foody**5 TAND OFF CLINCH HEIGHTH20.451.45*0*1 Cumulative pitch error 1.0 mm/20 pitch**3 TAND OFF CLINCH HEIGHTH30.451.45*1 Cumulative pitch error 1.0 mm/20 pitch**4 At top of bodyLEAD PARALLELISM[C1 - C2]0.22*4 At top of body | BODY HEIGHT | А | 4.8 | | 5.2 | | 1. Maximum alignment deviation between |
| *1 FEED HOLE PITCH Po 12.7 ± 0.3 ± 0.3 between tape feed holes shall not exceed holes. *2 FEED HOLE CENTRE TO COMPONENT CENTRE P2 6.35 ± 0.4 3. Holdown tape feed holes shall not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive. *3 COMPONENT ALIGNMENT SIDE VIEW Δh 0 1.0 -0.2 4. There will be no more than three (3) consecutive missing components in a tape. *4 COMPONENT ALIGNMENT FRONT VIEW Δh 0 1.0 -0.5 ± 0.5 HOLD-DOWN TAPE WIDTH Wo 6 ± 0.7 -0.5 5. A tape trailer, having at least three feed holes. HOLD-DOWN TAPE POSITION W2 0.5 ± 0.5 ± 0.5 5. A tape trailer, having at least three feed holes. HOLD-DOWN TAPE POSITION W2 0.5 ± 0.5 ± 0.5 6. Splices should not interfere with the sprocket feed holes. LEAD VIRE CLINCH HEIGHT H0 16 ± 0.5 ± 0.5 4. 0.4 *1 Cumulative pitch error 1.0 mm/20 pitch *5 TOTAL TAPE THICKNESS t 1.45 1.45 •0.4 *1 Cumulative pitch error 1.0 mm/20 pitch *5 TAND OFF H2 0.45 1.45 3.0 < | BODY THICKNESS | Т | 3.9 | | 4.2 | | |
| **2 FEED HOLE CENTRE TO COMPONENT CENTRE P2 6.35 ± 0.4 exceed 1 mm in 20 pitches. DISTANCE BETWEEN OUTER LEADS F 5.08 ± 0.4 3. Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive. *3 COMPONENT ALIGNMENT SIDE VIEW *4 COMPONENT ALIGNMENT FRONT VIEW TAPE WIDTH △h 0 1.0 -0.2 4. There will be no more than three (3) consecutive missing components in a tape. HOLD-DOWN TAPE WIDTH HOLE POSITION W 18 ± 0.5 ± 0.2 5. A tape trailer, having at least three feed holes are provided after the last component in a tape. HOLD-DOWN TAPE POSITION HOLE POSITION W2 0.5 ± 0.2 5. A tape trailer, having at least three feed holes are provided after the last component in a tape. HOLD-DOWN TAPE POSITION LEAD WIRE CLINCH HEIGHT LEAD WIRE CLINCH HEIGHT LEAD TO - LEAD DISTANCE W2 0.5 ± 0.2 *5 TOTAL TAPE THICKNESS CLINCH HEIGHT LEAD - TO - LEAD DISTANCE F1, F2 2.54 + 0.4 *5 TAND OFF CLINCH HEIGHT LEAD PARALLELISM H2 0.45 1.45 3.0 *1 Cunulative pitch error 1.0 mm/20 pitch *3 At top of body *4 At top of body | | Р | | | | ± 1.0 | 2. Maximum non-cumulative variation |
| COMPONENT CENTRE DISTANCE BETWEEN OUTER LEADSP26.35± 0.43. Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.*3 COMPONENT ALIGNMENT SIDE VIEW *4 COMPONENT ALIGNMENT FRONT VIEW TAPE WIDTH HOLD-DOWN TAPE WIDTH HOLE POSITION△h01.04. There will be no more than three (3) consecutive missing components in a tape.HOLD-DOWN TAPE WIDTH HOLE POSITIONW18± 0.55. A tape trailer, having at least three feed holes are provided after the last component in a tape.HOLD-DOWN TAPE POSITION LEAD WIRE CLINCH HEIGHT LEAD TO - LEAD DISTANCEW20.5± 0.2*5 TOTAL TAPE THICKNESS CLINCH HEIGHT LEAD - TO - LEAD DISTANCEF1, F22.54+ 0.4*5 TAND OFF CLINCH HEIGHT LEAD PARALLELISMF1, C211.45*1 Cumulative pitch error 1.0 mm/20 pitch *3 At top of body | *1FEED HOLE PITCH | Po | | 12.7 | | ± 0.3 | |
| DISTANCE BETWEEN OUTER LEADSIn 20.001.03. Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.*3 COMPONENT ALIGNMENT SIDE VIEW *4 COMPONENT ALIGNMENT FRONT VIEW TAPE WIDTH $\triangle h$ 01.0*4 COMPONENT ALIGNMENT FRONT VIEW TAPE WIDTH $\triangle h$ 01.04. There will be no more than three (3) consecutive missing components in a tape.HOLD-DOWN TAPE WIDTH HOLE POSITIONW18 ± 0.5 5. A tape trailer, having at least three feed holes are provided after the last component in a tape.HOLD-DOWN TAPE POSITION LEAD WIRE CLINCH HEIGHT LEAD WIRE CLINCH HEIGHTW20.5 ± 0.2 5. A tape trailer, having at least three feed holes are provided after the last component in a tape.*5 TOTAL TAPE THICKNESS CLINCH HEIGHT LEAD OFF CLINCH HEIGHT LEAD PARALLELISMF1, F22.54 ± 0.2 *1 Cumulative pitch error 1.0 mm/20 pitch *3 At top of body*4 top of body | ^{*2} FEED HOLE CENTRE TO | | | | | | exceed 1 mm in 20 pitches. |
| LEADSF5.08+ 0.0shall be no exposure of adhesive.*3 COMPONENT ALIGNMENT SIDE VIEW *4 COMPONENT ALIGNMENT FRONT VIEW TAPE WIDTH△h01.0*4 COMPONENT ALIGNMENT FRONT VIEW TAPE WIDTH△h101.3± 0.5HOLD-DOWN TAPE WIDTH HOLE POSITIONW18± 0.5± 0.2HOLD-DOWN TAPE WIDTH HOLE POSITIONW19± 0.7HOLD-DOWN TAPE POSITION LEAD WIRE CLINCH HEIGHT LENGTH OF SNIPPED LEADSW20.5± 0.2 | | P2 | | 6.35 | | ± 0.4 | |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | | - | | E 00 | | + 0.6 | |
| **4 COMPONENT ALIGNMENT FRONT VIEW △h1 0 1.3 consecutive missing components in a tape. TAPE WIDTH W 18 ± 0.5 ± 0.5 ± 0.7 HOLD-DOWN TAPE WIDTH W0 6 ± 0.7 -0.5 ± 0.7 HOLD-DOWN TAPE POSITION W2 0.5 ± 0.2 + 0.7 -0.5 HOLD-DOWN TAPE POSITION W2 0.5 ± 0.2 ± 0.5 5 LEAD WIRE CLINCH HEIGHT H0 16 ± 0.5 ± 0.5 6 COMPONENT HEIGHT H1 23.25 11.0 6 Spices should not interfere with the sprocket feed holes. FEED HOLE DIAMETER Do 4 ± 0.2 1.2 11.0 7 *5 TOTAL TAPE THICKNESS t 1.2 1.45 ± 0.2 11.0 12 12 STAND OFF H2 0.45 1.45 3.0 ± 0.4 ± 0.1 *1 Cumulative pitch error 1.0 mm/20 pitch *2 To be measured at bottom of clinch *3 At top of body *4 At top of body *4 At top of body | | Г | | 5.00 | | - 0.2 | |
| TAPE WIDTHW18 ± 0.5 ± 0.5 tape.HOLD-DOWN TAPE WIDTHWo6 ± 0.5 ± 0.5 ± 0.5 HOLD-DOWN TAPE POSITIONW19 $+0.7$ -0.5 5 . A tape trailer, having at least three feed holes are provided after the last component in a tape.HOLD-DOWN TAPE POSITIONW20.5 ± 0.2 ± 0.5 ± 0.2 LEAD WIRE CLINCH HEIGHTHo16 ± 0.5 ± 0.2 5 . Splices should not interfere with the sprocket feed holes.COMPONENT HEIGHTH123.2511.0 5 . Splices should not interfere with the sprocket feed holes.FEED HOLE DIAMETERDo4 ± 0.2 $*1.2$ LEAD - TO - LEAD DISTANCEF1, F2 2.54 $+0.4$ $*1$ Cumulative pitch error 1.0 mm/20 pitchSTAND OFFH2 0.45 1.45 3.0 $*4$ At top of bodyLEAD PARALLELISM C1 - C2 0.22 $*4$ At top of body $*4$ At top of body | *3 COMPONENT ALIGNMENT SIDE VIEW | ∆h | | 0 | | | |
| TAPE WIDTHW18± 0.5HOLD-DOWN TAPE WIDTHWo6± 0.2HOLE POSITIONW19+ 0.7-0.5± 0.2- 0.5HOLD-DOWN TAPE POSITIONW20.5± 0.2LEAD WIRE CLINCH HEIGHTHo16± 0.5COMPONENT HEIGHTH123.25LENGTH OF SNIPPED LEADSL11.0FEED HOLE DIAMETERDo4± 0.2*5 TOTAL TAPE THICKNESSt1.2LEAD - TO - LEAD DISTANCEF1, F22.54STAND OFFH20.451.45CLINCH HEIGHTH30.22LEAD PARALLELISM C1 - C2 | | | | Ŭ | 1.3 | | v . |
| HOLD DOWN TAPE POSITIONW19+ 0.7 - 0.5holes are provided after the last component in a tape.HOLD-DOWN TAPE POSITIONW20.5± 0.2-LEAD WIRE CLINCH HEIGHTHo16± 0.56. Splices should not interfere with the sprocket feed holes.COMPONENT HEIGHTH123.2511.0LENGTH OF SNIPPED LEADSL11.04*5 TOTAL TAPE THICKNESSt1.2LEAD - TO - LEAD DISTANCEF1, F22.54+ 0.4STAND OFFH20.451.45CLINCH HEIGHTH30.224 top of bodyLEAD PARALLELISM C1 - C2 0.22*4 At top of body | | W | | | | | |
| HOLE POSITIONW19+ 0.7 - 0.5component in a tape.HOLD-DOWN TAPE POSITIONW20.5± 0.26. Splices should not interfere with the sprocket feed holes.LEAD WIRE CLINCH HEIGHTHo16± 0.56. Splices should not interfere with the sprocket feed holes.COMPONENT HEIGHTH123.2511.06. Splices should not interfere with the sprocket feed holes.FEED HOLE DIAMETERDo4± 0.28.*5 TOTAL TAPE THICKNESSt1.21.21.2LEAD - TO - LEAD DISTANCEF1, F22.54+ 0.4 - 0.1-0.1STAND OFFH20.451.453.0CLINCH HEIGHTH30.220.22*4 At top of bodyLEAD PARALLELISM C1 - C2 0.22*4 At top of body | HOLD-DOWN TAPE WIDTH | Wo | | Ŭ | | ± 0.2 | |
| HOLD-DOWN TAPE POSITION LEAD WIRE CLINCH HEIGHT COMPONENT HEIGHTW2 Ho Ho 0.5 16 ± 0.2 ± 0.5 6 . Splices should not interfere with the sprocket feed holes.COMPONENT HEIGHT LENGTH OF SNIPPED LEADS FEED HOLE DIAMETERH1 Do 23.25 11.0 7.02 6 . Splices should not interfere with the sprocket feed holes.*5 TOTAL TAPE THICKNESS LEAD - TO - LEAD DISTANCEL F1, F2 11.0 2.54 ± 0.2 11.0 $REMARKS$ STAND OFF CLINCH HEIGHT LEAD PARALLELISMH2 IC1 - C2 I 0.45 1.45 3.0 7.0 0.22 $* 4$ At top of body | HOLE POSITION | W1 | | 9 | | ••• | |
| HOLD-DOWN TAPE FOSTIONW20.3± 0.2± 0.2sprocket feed holes.LEAD WIRE CLINCH HEIGHTHo16± 0.5sprocket feed holes.COMPONENT HEIGHTH123.2511.0feed holes.LENGTH OF SNIPPED LEADSL11.010feed holes.FEED HOLE DIAMETERDo4± 0.2feed holes.*5 TOTAL TAPE THICKNESSt1.2± 0.4fl Cumulative pitch error 1.0 mm/20 pitchLEAD - TO - LEAD DISTANCEF1, F22.54+ 0.4fl Cumulative pitch error 1.0 mm/20 pitchSTAND OFFH20.451.453.0*3 At top of bodyCLINCH HEIGHTH30.220.22*4 At top of body | | | | | | | |
| LEAD WIRE CLINCH HEIGHTHo16± 0.5COMPONENT HEIGHTH123.25LENGTH OF SNIPPED LEADSL11.0FEED HOLE DIAMETERDo4± 0.2*5 TOTAL TAPE THICKNESSt1.2LEAD - TO - LEAD DISTANCEF1, F22.54+ 0.4STAND OFFH20.451.45CLINCH HEIGHTH33.0*4 At top of bodyLEAD PARALLELISM C1 - C2 0.22*4 At top of body | | | | | | | |
| LENGTH OF SNIPPED LEADSL411.0FEED HOLE DIAMETERDo4± 0.2*5 TOTAL TAPE THICKNESSt1.2LEAD - TO - LEAD DISTANCEF1, F22.54STAND OFFH20.45CLINCH HEIGHTH3LEAD PARALLELISM C1 - C2 | | | | 16 | | ± 0.5 | |
| FEED HOLE DIAMETERDo4± 0.2REMARKS*5 TOTAL TAPE THICKNESSt1.21.2* 0.4* 1.2* | | H1 | | | | | |
| *5 TOTAL TAPE THICKNESSt1.2*1 Cumulative pitch error 1.0 mm/20 pitchLEAD - TO - LEAD DISTANCEF1, F22.54+ 0.4- 0.1*1 Cumulative pitch error 1.0 mm/20 pitchSTAND OFFH20.451.453.0*3 At top of bodyCLINCH HEIGHTH3 C1 - C2 0.22*4 At top of body | | - | | | 11.0 | | |
| LEAD - TO - LEAD DISTANCEF1, F22.54+ 0.4 - 0.1* 1 Cumulative pitch error 1.0 mm/20 pitchSTAND OFFH20.451.45- 0.1*2 To be measured at bottom of clinchCLINCH HEIGHTH33.03.0*4 At top of bodyLEAD PARALLELISM C1 - C2 0.22*4 At top of body | | Do | | 4 | | ± 0.2 | REMARKS |
| ELEAD FIGUREH1, 122.54+ 0.4STAND OFFH20.451.45CLINCH HEIGHTH33.0LEAD PARALLELISM C1 - C2 0.22 | | | | | 1.2 | | *1 Cumulative pitch error 1.0 mm/20 pitch |
| STAND OFFH20.451.45CLINCH HEIGHTH33.0*3 At top of bodyLEAD PARALLELISM C1 - C2 0.22*4 At top of body | LEAD - TO - LEAD DISTANCE | F1, F2 | | 2.54 | | + 0.4 | |
| LEAD PARALLELISMI C1 - C2 0.22*4 At top of body | STAND OFF | H2 | 0.45 | | 1.45 | - 0.1 | |
| | CLINCH HEIGHT | H3 | | | 3.0 | | |
| PULL - OUT FORCE (p) 6N *5 t1 0.3 – 0.6 mm | LEAD PARALLELISM | C1 - C2 | | | 0.22 | | *4 At top of body |
| | PULL - OUT FORCE | (p) | 6N | | | | *5 t1 0.3 – 0.6 mm |

BC212, A, B BC213, A, B, C BC214, B, C

TO-92 Plastic Package

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