

ZENER DIODES

BZG03C--SERIES

FEATURES

- High reliability
- Voltage range 10 V to 270 V
- Fits onto 5 mm SMD footpads
- Wave and reflow solderable Glass passivated junction



Lead-free

MECHANICAL DATA

- Case: JEDEC DO-214AC(SMA)
- Terminals: Solderable per MILSTD-202,Method 208
- Polarity: Color band denotes cathods end
- Weight: 0.002 ounces, 0.064 grams
- Mounting position: any

Maximum Ratings and Thermal Characteristics (T_A=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|------------------|-------------|------|
| Power dissipation at T _p =100°C | P _{tot} | 3.0 | W |
| Forward voltage @I _F =500mA | V _F | 1.2 | V |
| Maximum thermal resistance junction to ambient | R _{θJA} | 150 | K/W |
| Peak reverse power dissipation(non-repetitive) tp=100 μs square wave | P _{ZSM} | 600 | W |
| Junction temperature | T _J | -65 -- +150 | °C |
| Storage temperature range | T _{STG} | -65 -- +150 | °C |

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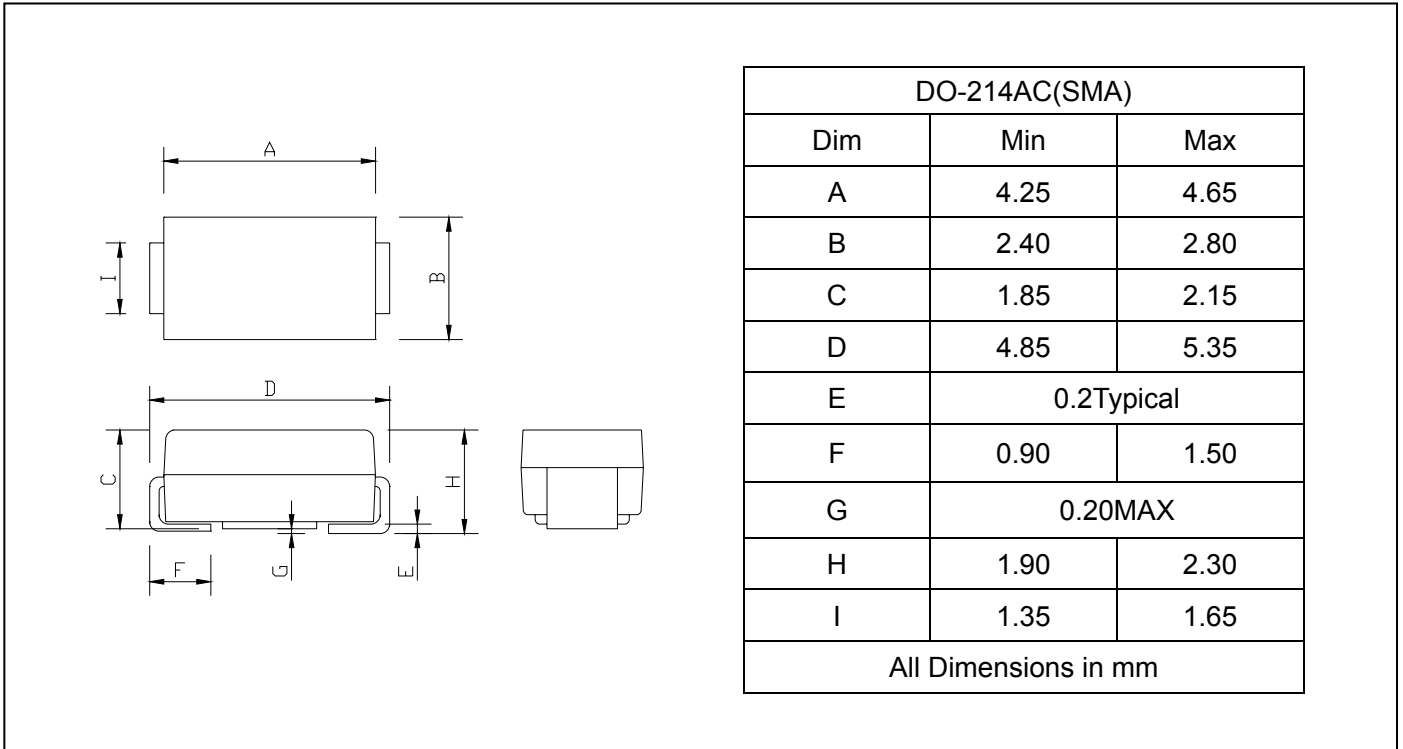
ELECTRICAL CHARACTERISTICS @ $T_A=25^{\circ}\text{C}$

| Type | Device marking code | Zener Voltage Range(Note 1) | | | | Leakage Current | |
|-----------|---------------------|-----------------------------|-----|------|------------|-----------------|-----|
| | | $V_Z(\text{V})$ | | | @ I_{ZT} | $I_R @ V_R$ | |
| | | Min | Nom | Max | mA | μA | V |
| BZG03C10 | G10 | 9.4 | 10 | 10.6 | 50 | 10 | 7.5 |
| BZG03C11 | G11 | 10.4 | 11 | 11.6 | 50 | 4.0 | 8.2 |
| BZG03C12 | G12 | 11.4 | 12 | 12.7 | 50 | 3.0 | 9.1 |
| BZG03C13 | G13 | 12.4 | 13 | 14.1 | 50 | 2.0 | 10 |
| BZG03C15 | G15 | 13.8 | 15 | 15.6 | 50 | 1.0 | 11 |
| BZG03C16 | G16 | 15.3 | 16 | 17.1 | 25 | 1.0 | 12 |
| BZG03C18 | G18 | 16.8 | 18 | 19.1 | 25 | 1.0 | 13 |
| BZG03C20 | G20 | 18.8 | 20 | 21.2 | 25 | 1.0 | 15 |
| BZG03C22 | G22 | 20.8 | 22 | 23.3 | 25 | 1.0 | 16 |
| BZG03C24 | G24 | 22.8 | 24 | 25.6 | 25 | 1.0 | 18 |
| BZG03C27 | G27 | 25.1 | 27 | 28.9 | 25 | 1.0 | 20 |
| BZG03C30 | G30 | 28 | 30 | 32 | 25 | 1.0 | 22 |
| BZG03C33 | G33 | 31 | 33 | 35 | 25 | 1.0 | 24 |
| BZG03C36 | G36 | 34 | 36 | 38 | 10 | 1.0 | 27 |
| BZG03C39 | G39 | 37 | 39 | 41 | 10 | 1.0 | 30 |
| BZG03C43 | G43 | 40 | 43 | 46 | 10 | 1.0 | 33 |
| BZG03C47 | G47 | 44 | 47 | 50 | 10 | 1.0 | 36 |
| BZG03C51 | G51 | 48 | 51 | 54 | 10 | 1.0 | 39 |
| BZG03C56 | G56 | 52 | 56 | 60 | 10 | 1.0 | 43 |
| BZG03C62 | G62 | 58 | 62 | 66 | 10 | 1.0 | 47 |
| BZG03C68 | G68 | 64 | 68 | 72 | 10 | 1.0 | 51 |
| BZG03C75 | G75 | 70 | 75 | 79 | 10 | 1.0 | 56 |
| BZG03C82 | G82 | 77 | 82 | 87 | 10 | 1.0 | 62 |
| BZG03C91 | G91 | 85 | 91 | 96 | 5.0 | 1.0 | 68 |
| BZG03C100 | G100 | 94 | 100 | 106 | 5.0 | 1.0 | 75 |
| BZG03C110 | G10 | 104 | 110 | 116 | 5.0 | 1.0 | 82 |
| BZG03C120 | G120 | 114 | 120 | 127 | 5.0 | 1.0 | 91 |
| BZG03C130 | G30 | 124 | 130 | 141 | 5.0 | 1.0 | 100 |
| BZG03C150 | G150 | 138 | 150 | 156 | 5.0 | 1.0 | 110 |
| BZG03C160 | G160 | 158 | 160 | 171 | 5.0 | 1.0 | 120 |
| BZG03C180 | G180 | 168 | 180 | 191 | 5.0 | 1.0 | 130 |
| BZG03C200 | G200 | 188 | 200 | 212 | 5.0 | 1.0 | 150 |
| BZG03C220 | G220 | 208 | 220 | 233 | 2.0 | 1.0 | 160 |
| BZG03C240 | G240 | 228 | 240 | 256 | 2.0 | 1.0 | 180 |
| BZG03C270 | G270 | 251 | 270 | 289 | 2.0 | 1.0 | 200 |

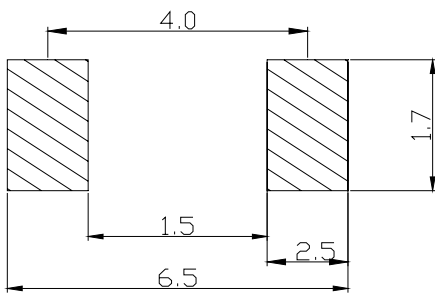
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PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

| Device | Package | Shipping |
|-----------------|---------------|----------------|
| BZG03C---SERIES | DO-214AC(SMA) | 5000/Tape&Reel |

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FIG.1 – TYPICAL FORWARD CHARACTERISTIC

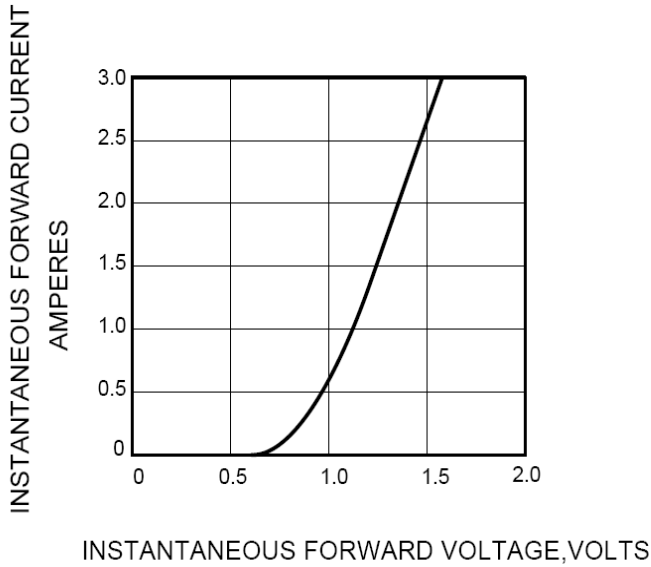


FIG.2 – NON REPETITIVE SURGE POWER DISSIPATION VS. PULSE LENGTH

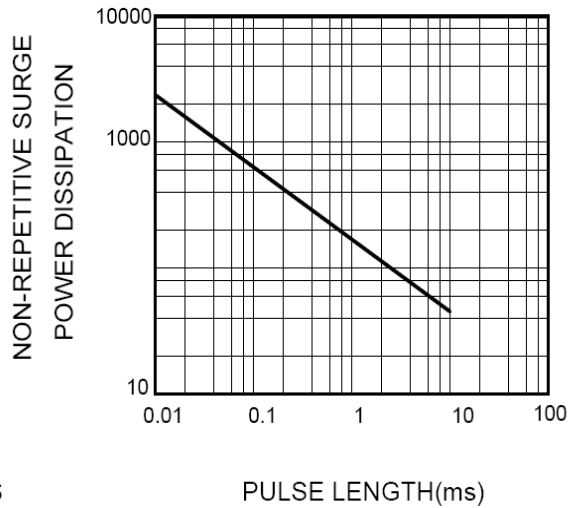


FIG.3 – THERMAL RESPONSE

