

ACZRW5223B-G Thru. ACZRW5256B-G

Voltage: 2.7 to 30 Volts

Power: 350 mWatts

RoHS Device

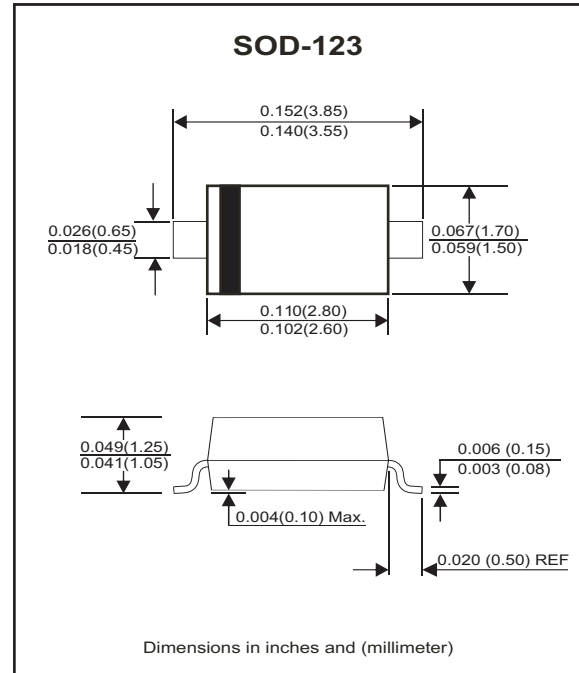


Features

- For surface mounted applications.
- Ultra-Small surface medium package.
- General purpose, medium current.
- Ideally suited for automated assembly processes.
- Comply with AEC-Q101.

Mechanical data

- Case: SOD-123, Molded plastic.
- Terminals: Solder Plated, solderable per MIL-STD-750, method 2026.
- Polarity: Cathode band.
- Weight: 0.01 gram (approx.).



Maximum Rating (@Ta=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|---|-----------------------------------|-------------|------|
| Forward Voltage (Note 2) @ If=10mA | V _F | 0.9 | V |
| Power Dissipation (Note 1) | P _D | 350 | mW |
| Thermal Resistance, Junction to Ambient Air | R _{θJA} | 357 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | °C |

Notes: 1. Device mounted on ceramic PCB; 7.6mm x 9.4mm x 0.87mm with pad areas 25mm².
 2. Tested with pulses, T_p ≤ 1.0ms.

Electrical Characteristics(@Ta = 25°C unless otherwise specified)

| Part Number | Zener Voltage | | | Operating resistance | | Rising operating resistance | | Reverse current | | Marking Code |
|--------------|---------------|-----|-------|----------------------|---------|-----------------------------|---------|-----------------|-------|--------------|
| | Vz(V)@IzT | | | ZzT(Ohm) | | Zzk(Ohm) | | IR(uA) | | |
| | Min | Nom | Max | Max | IzT(mA) | Max | Izk(mA) | Max | Vr(V) | |
| ACZRW5223B-G | 2.57 | 2.7 | 2.84 | 30 | 20 | 1300 | 0.25 | 75 | 1.0 | C3 |
| ACZRW5225B-G | 2.85 | 3.0 | 3.15 | 30 | 20 | 1600 | 0.25 | 50 | 1.0 | C5 |
| ACZRW5226B-G | 3.14 | 3.3 | 3.47 | 28 | 20 | 1600 | 0.25 | 25 | 1.0 | G1 |
| ACZRW5227B-G | 3.42 | 3.6 | 3.78 | 24 | 20 | 1700 | 0.25 | 15 | 1.0 | G2 |
| ACZRW5228B-G | 3.71 | 3.9 | 4.10 | 23 | 20 | 1900 | 0.25 | 10 | 1.0 | G3 |
| ACZRW5229B-G | 4.09 | 4.3 | 4.52 | 22 | 20 | 2000 | 0.25 | 5 | 1.0 | G4 |
| ACZRW5230B-G | 4.47 | 4.7 | 4.94 | 19 | 20 | 1900 | 0.25 | 5 | 2.0 | G5 |
| ACZRW5231B-G | 4.85 | 5.1 | 5.36 | 17 | 20 | 1600 | 0.25 | 5 | 2.0 | E1 |
| ACZRW5232B-G | 5.32 | 5.6 | 5.88 | 11 | 20 | 1600 | 0.25 | 5 | 3.0 | E2 |
| ACZRW5233B-G | 5.70 | 6.0 | 6.30 | 7 | 20 | 1600 | 0.25 | 5 | 3.5 | E3 |
| ACZRW5234B-G | 5.89 | 6.2 | 6.51 | 7 | 20 | 1000 | 0.25 | 5 | 4.0 | E4 |
| ACZRW5235B-G | 6.46 | 6.8 | 7.14 | 5 | 20 | 750 | 0.25 | 3 | 5.0 | E5 |
| ACZRW5236B-G | 7.13 | 7.5 | 7.88 | 6 | 20 | 500 | 0.25 | 3 | 6.0 | F1 |
| ACZRW5237B-G | 7.79 | 8.2 | 8.61 | 8 | 20 | 500 | 0.25 | 3 | 6.5 | F2 |
| ACZRW5238B-G | 8.27 | 8.7 | 9.14 | 8 | 20 | 600 | 0.25 | 3 | 6.5 | F3 |
| ACZRW5239B-G | 8.65 | 9.1 | 9.56 | 10 | 20 | 600 | 0.25 | 3 | 7.0 | F4 |
| ACZRW5240B-G | 9.50 | 10 | 10.50 | 17 | 20 | 600 | 0.25 | 3 | 8.0 | F5 |
| ACZRW5241B-G | 10.45 | 11 | 11.55 | 22 | 20 | 600 | 0.25 | 2 | 8.4 | H1 |
| ACZRW5242B-G | 11.40 | 12 | 12.60 | 30 | 20 | 600 | 0.25 | 1 | 9.1 | H2 |
| ACZRW5243B-G | 12.35 | 13 | 13.65 | 13 | 9.5 | 600 | 0.25 | 0.5 | 9.9 | H3 |
| ACZRW5244B-G | 13.30 | 14 | 14.70 | 15 | 9.0 | 600 | 0.25 | 0.1 | 10 | H4 |
| ACZRW5245B-G | 14.25 | 15 | 15.75 | 16 | 8.5 | 600 | 0.25 | 0.1 | 11 | H5 |
| ACZRW5246B-G | 15.20 | 16 | 16.80 | 17 | 7.8 | 600 | 0.25 | 0.1 | 12 | J1 |
| ACZRW5248B-G | 17.10 | 18 | 18.90 | 21 | 7.0 | 600 | 0.25 | 0.1 | 14 | J3 |
| ACZRW5250B-G | 19.00 | 20 | 21.00 | 25 | 6.2 | 600 | 0.25 | 0.1 | 15 | J5 |
| ACZRW5251B-G | 20.90 | 22 | 23.10 | 29 | 5.6 | 600 | 0.25 | 0.1 | 17 | K1 |
| ACZRW5252B-G | 22.80 | 24 | 25.20 | 33 | 5.2 | 600 | 0.25 | 0.1 | 18 | K2 |
| ACZRW5253B-G | 23.75 | 25 | 26.25 | 35 | 5.0 | 600 | 0.25 | 0.1 | 19 | K3 |
| ACZRW5254B-G | 25.65 | 27 | 28.35 | 41 | 5.0 | 600 | 0.25 | 0.1 | 21 | K4 |
| ACZRW5255B-G | 26.60 | 28 | 29.40 | 44 | 4.5 | 600 | 0.25 | 0.1 | 21 | K5 |
| ACZRW5256B-G | 28.50 | 30 | 31.50 | 49 | 4.2 | 600 | 0.25 | 0.1 | 23 | M1 |

Company reserves the right to improve product design , functions and reliability without notice.

RATING AND CHARACTERISTIC CURVES (ACZRW5223B-G Thru ACZRW5256B-G)

Fig.1 - Power Derating Curve



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REV:A

Reel Taping Specification



| SOD-123 | SYMBOL | A | B | C | d | D | D1 | D2 |
|---------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | (mm) | 1.85 ± 0.05 | 3.94 ± 0.05 | 1.57 ± 0.05 | 1.55 ± 0.10 | 178 ± 2.00 | 54.40 ± 1.00 | 13.0 ± 1.00 |
| | (inch) | 0.073 ± 0.002 | 0.155 ± 0.002 | 0.062 ± 0.002 | 0.061 ± 0.004 | 7.008 ± 0.079 | 2.142 ± 0.039 | 0.512 ± 0.039 |

| SOD-123 | SYMBOL | E | F | P | P0 | P1 | W | W1 |
|---------|--------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.10 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.10 | 8.00+0.30/-0.10 | 9.50 ± 1.00 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.004 | 0.158 ± 0.004 | 0.158 ± 0.004 | 0.079 ± 0.004 | 0.315+0.012/-0.004 | 0.374 ± 0.039 |

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REV:A

Marking Code

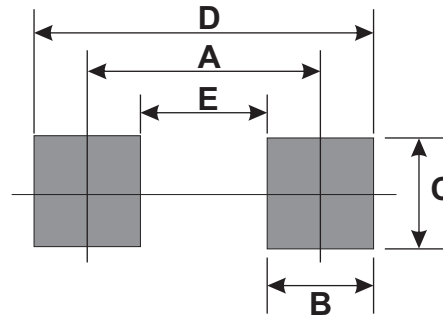
| Part Number | Marking Code |
|-----------------------------|--------------|
| ACZRW5223B-G ~ ACZRW5256B-G | XX |



Product type marking code (see page.2)

Suggested PAD Layout

| SIZE | SOD-123 | |
|------|---------|--------|
| | (mm) | (inch) |
| A | 3.24 | 0.128 |
| B | 0.80 | 0.031 |
| C | 1.00 | 0.039 |
| D | 4.04 | 0.159 |
| E | 2.44 | 0.096 |



Standard Packaging

| Case Type | REEL PACK | |
|-----------|-----------------|---------------------|
| | REEL (pcs) | Reel Size (inch) |
| SOD-123 | 3,000 | 7 |

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