

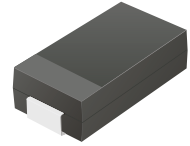
CURA101-HF Thru. CURA107-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

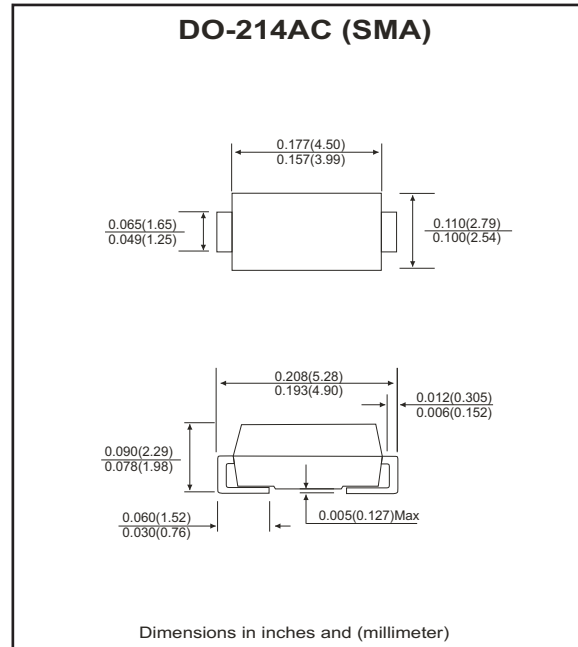


Features

- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- Ultra fast recovery time: 50~100nS.
- Low leakage current.

Mechanical data

- Case: JEDEC DO-214AC, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Approx. weight: 0.064 grams



Maximum Ratings and Electrical Characteristics

| Parameter | Symbol | CURA 101-HF | CURA 102-HF | CURA 103-HF | CURA 104-HF | CURA 105-HF | CURA 106-HF | CURA 107-HF | Units |
|--|-----------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|
| Max. repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Max. DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Max. RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | 30 | | | | | | | A |
| Max. average forward rectified current At $T_A = 55^{\circ}C$ | $I_{(AC)}$ | 1.0 | | | | | | | A |
| Max. instantaneous forward voltage per at 1.0A | V_F | 1.0 | | 1.3 | | 1.7 | | V | |
| Reverse recovery time | T_{rr} | 50 | | | | 100 | | | nS |
| Typical Junction Capacitance (Measured at 1.0MHz and applied reves voltage of 4.0V) | C_J | 20 | | | | 15 | | | nS |
| Max. DC reverse current at $T_A = 25^{\circ}C$ rated DC blocking voltage $T_A = 100^{\circ}C$ | I_R | 5.0 | | | | 100 | | | μA |
| Typical Thermal Resistance(Note 1) | $R_{\theta JL}$ | 88 | | | | $^{\circ}C/W$ | | | |
| | $R_{\theta JL}$ | 28 | | | | $^{\circ}C/W$ | | | |
| Operating junction temperature | T_J | -55 to +150 | | | | | | | $^{\circ}C$ |
| Storage temperature | T_{STG} | -55 to +150 | | | | | | | $^{\circ}C$ |

Notes: 1. Thermal resistance from junction to lead.

RATING AND CHARACTERISTIC CURVES (CURA101-HF thru CURA107-HF)

Fig.1- Typical Forward Current Derating Curve

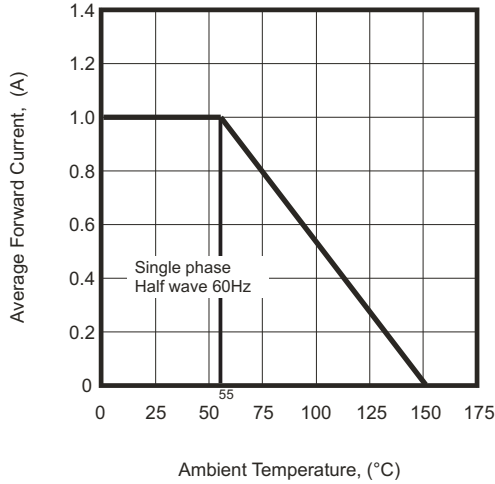


Fig.2 - Maximum NON-Repetitive Peak Forward Surge Current

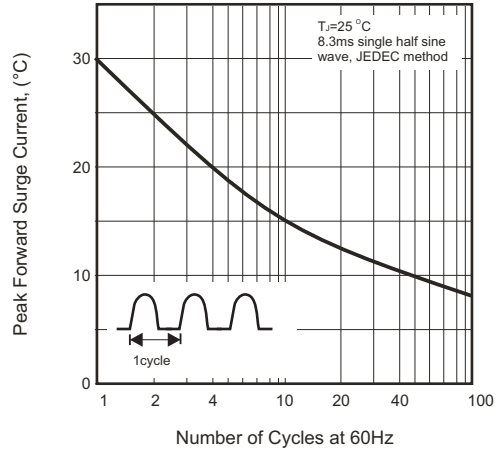


Fig.3 - Typical Instantaneous Forward Characteristics

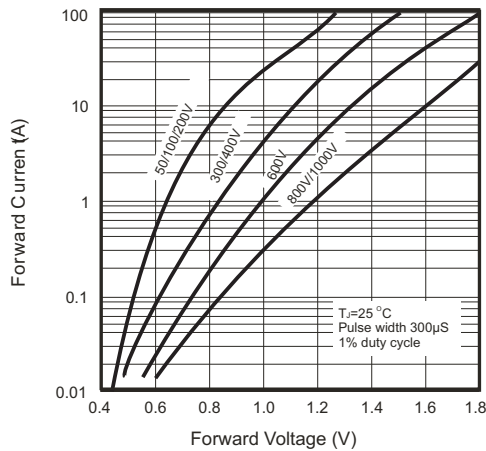


Fig.4 - Typical Reverse Characteristics

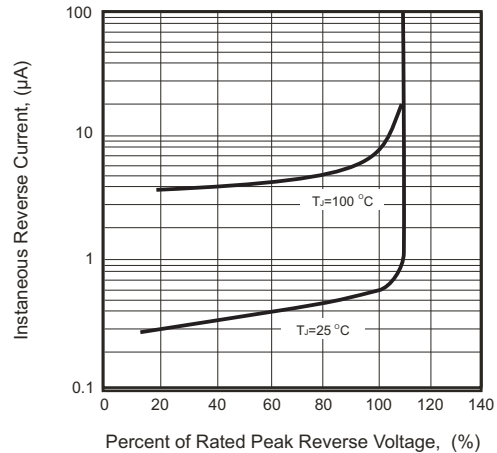


Fig.5 - Junction Capacitance

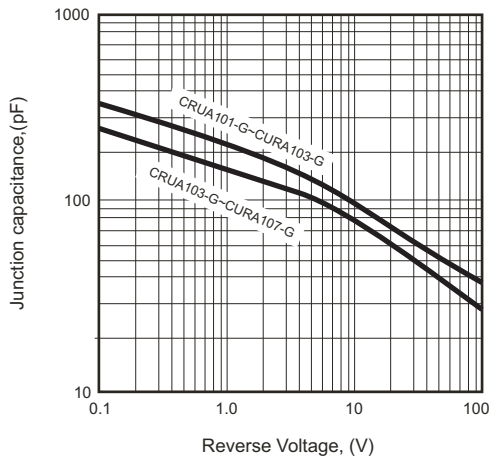
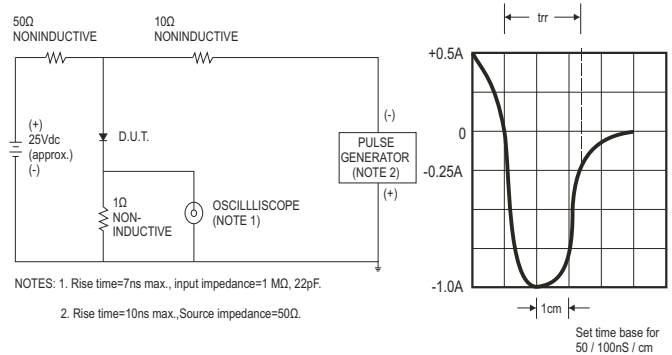
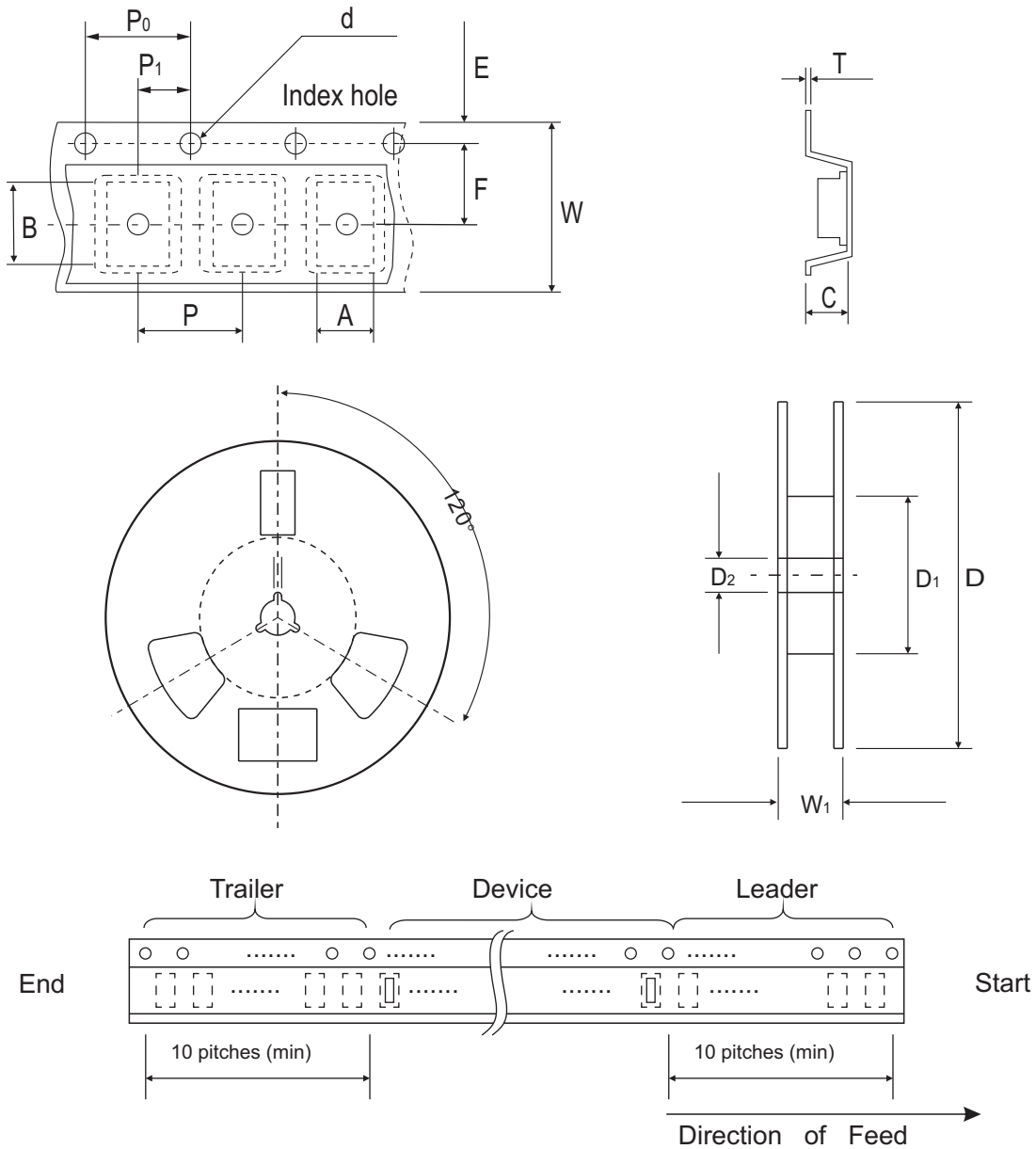


Fig.6 - Test Circuit Diagram and Reverse Recovery Time Characteristic



Reel Taping Specification

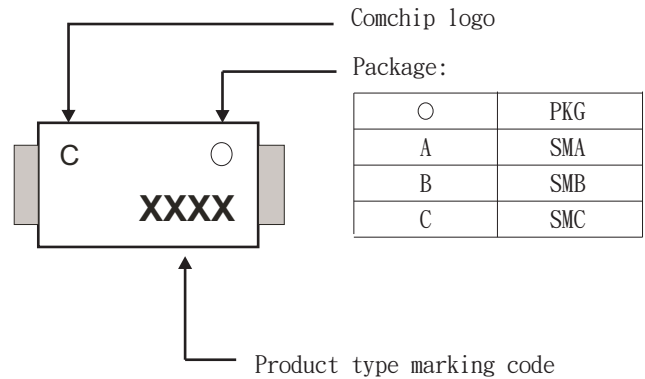


| DO-214AC (SMA) | SYMBOL | A | B | C | d | D | D1 | D2 |
|----------------|--------|-----------|-----------|-----------|-------------------|---------------|------------|---------------|
| | (mm) | 2.7 Max | 5.3 Max | 2.66 Max | 1.50 ± 0.10 DIA | 330 ± 2.00 | 50.0 Min. | 13.5 ± 1.00 |
| | (inch) | 0.106 Max | 0.209 Max | 0.105 Max | 0.059 ± 0.004 DIA | 13.00 ± 0.079 | 1.969 Min. | 0.531 ± 0.039 |

| DO-214AC (SMA) | SYMBOL | E | F | P | P0 | P1 | W | W1 |
|----------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|
| | (mm) | 1.75 ± 0.10 | 5.50 ± 0.05 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 12.0 ± 0.30 | 18.4 Max. |
| | (inch) | 0.689 ± 0.004 | 0.216 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.472 ± 0.012 | 0.724 Max |

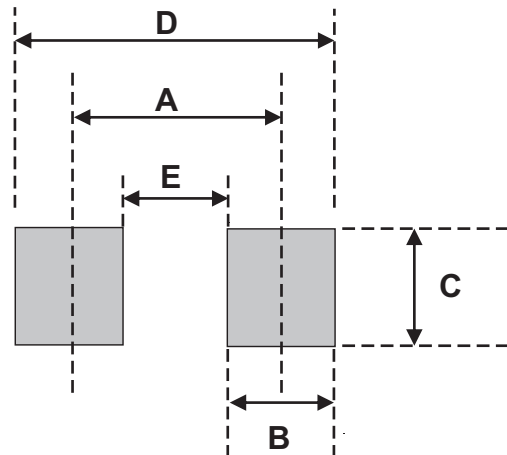
Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| CURA101-HF | U101 |
| CURA102-HF | U102 |
| CURA103-HF | U103 |
| CURA104-HF | U104 |
| CURA105-HF | U105 |
| CURA106-HF | U106 |
| CURA107-HF | U107 |



Suggested PAD Layout

| SIZE | DO-214AC (SMA) | |
|------|----------------|--------|
| | (mm) | (inch) |
| A | 4.50 | 0.177 |
| B | 1.50 | 0.059 |
| C | 3.60 | 0.142 |
| D | 6.00 | 0.236 |
| E | 3.00 | 0.118 |



Standard Packaging

| Case Type | Qty per Reel | Reel Size |
|----------------|--------------|-----------|
| | (Pcs) | (inch) |
| DO-214AC (SMA) | 5000 | 13 |

Mouser Electronics

Authorized Distributor

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