

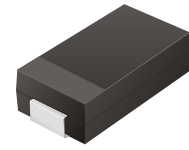
SMD Ultra Fast Recovery Rectifiers

CURC301-G Thru. CURC307-G

Reverse Voltage: 50 to 1000 Volts

Forward Current: 3.0 Amp

RoHS Device

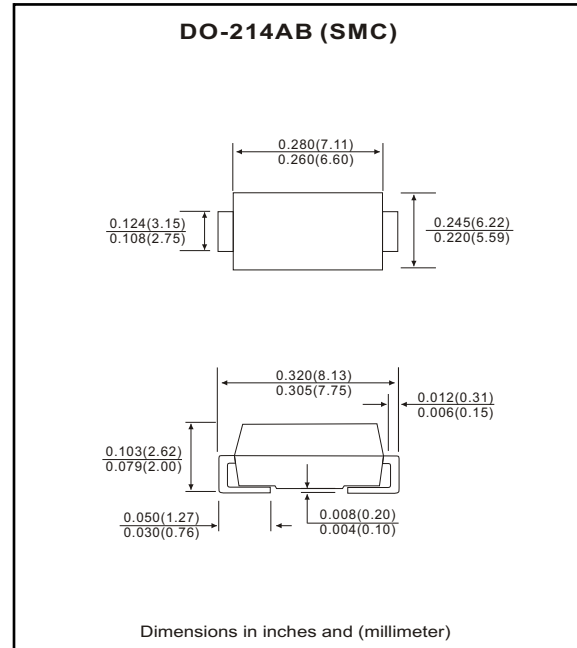


Features

- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- Fast recovery time: 50~75nS.
- Low leakage current.

Mechanical data

- Case: JEDEC DO-214AB, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Approx. weight: 0.21 grams



Maximum Ratings and Electrical Characteristics

| Parameter | Symbol | CURC 301-G | CURC 302-G | CURC 303-G | CURC 304-G | CURC 305-G | CURC 306-G | CURC 307-G | 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} | 100 | | | | | | | A |
| Max. average forward current | I_o | 3.0 | | | | | | | A |
| Max. instantaneous forward voltage at 3.0A | V_F | 1.0 | | | 1.3 | 1.7 | | | V |
| Reverse recovery time | T_{rr} | 50 | | | | 75 | | | nS |
| Max. DC reverse current at $T_A=25^{\circ}C$ rated DC blocking voltage $T_A=125^{\circ}C$ | I_R | 5.0 | | | | 150 | | | μA |
| Max. thermal resistance (Note 1) | $R_{\theta JL}$ | 20 | | | | $^{\circ}C/W$ | | | |
| Max. operating junction temperature | T_J | 150 | | | | | | | $^{\circ}C$ |
| Storage temperature | T_{STG} | -55 to +150 | | | | | | | $^{\circ}C$ |

Notes: 1. Thermal resistance from junction to lead mounted on P.C.B. with 8.0×8.0 mm² square land area.

RATING AND CHARACTERISTIC CURVES (CURC301-G thru CURC307-G)

Fig.1 Reverse Characteristics

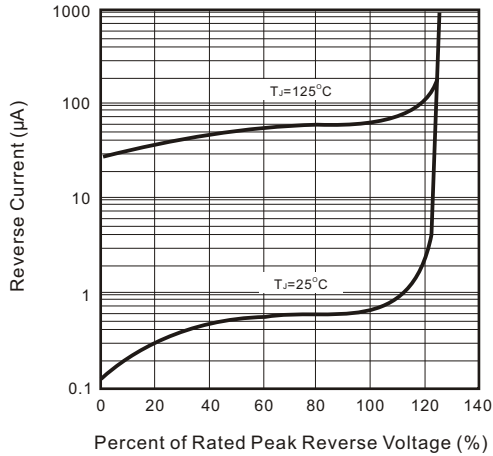


Fig.2 Forward Characteristics

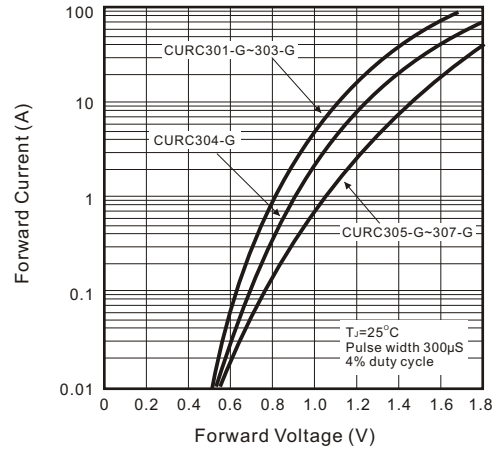


Fig.3 Junction Capacitance

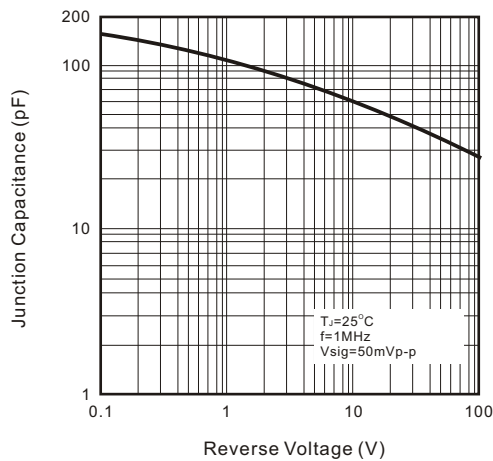


Fig.4 Non-repetitive Forward Surge Current

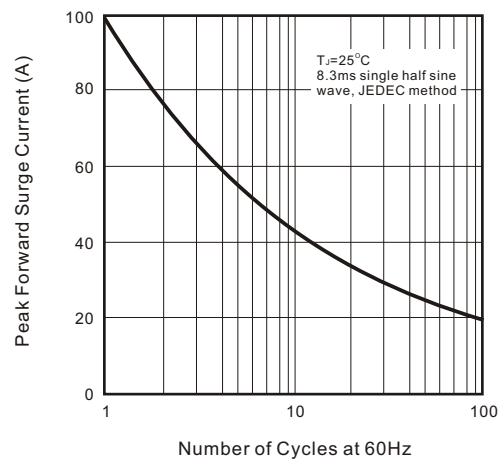


Fig.5 Test Circuit Diagram and Reverse Recovery Time Characteristics

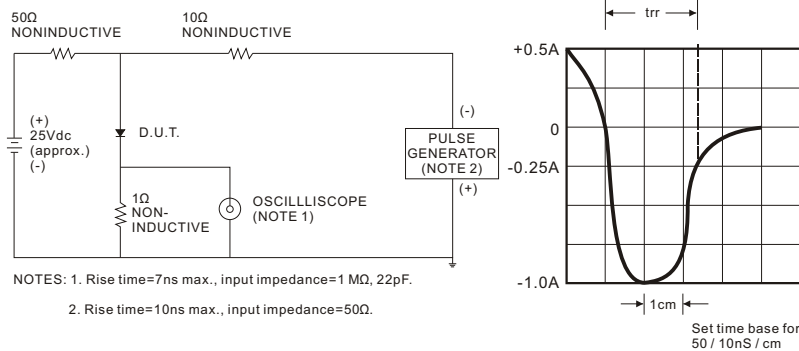


Fig.6 Current Derating Curve

