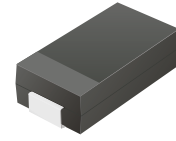


CDBC520-G Thru. CDBC5100-G

Reverse Voltage: 20 to 100 Volts

Forward Current: 5.0 Amp

RoHS Device

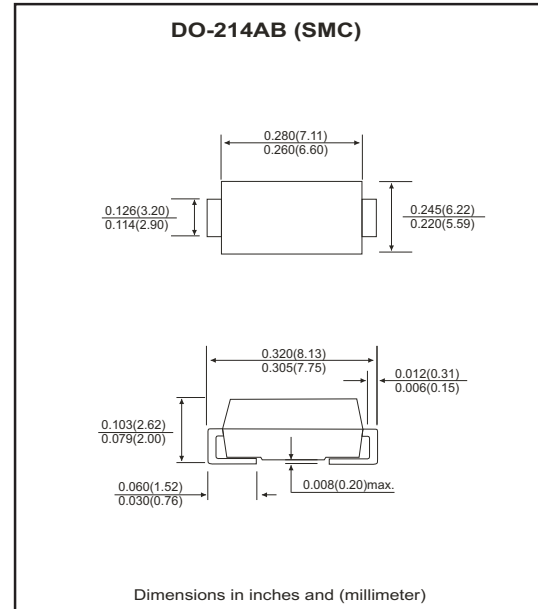


Features

- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- Built-in strain relief.
- Low forward voltage drop.

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 | CDBC 520-G | CDBC 540-G | CDBC 560-G | CDBC 580-G | CDBC 5100-G | Units |
|--|------------------------------------|------------|------------|-------------|------------|-------------|---------------|
| Max. repetitive peak reverse voltage | V_{RRM} | 20 | 40 | 60 | 80 | 100 | V |
| Max. DC blocking voltage | V_{DC} | 20 | 40 | 60 | 80 | 100 | V |
| Max. RMS voltage | V_{RMS} | 14 | 28 | 42 | 56 | 70 | 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 | 5.0 | | | | | A |
| Max. instantaneous forward voltage at 5.0A | V_F | 0.55 | | 0.75 | | 0.85 | V |
| Max. DC reverse current at $T_A=25^{\circ}C$ rated DC blocking voltage $T_A=100^{\circ}C$ | I_R | | | 0.5 50 | | | mA |
| Max. thermal resistance (Note 1) | $R_{\theta JA}$ $R_{\theta JL}$ | | | 50 10 | | | $^{\circ}C/W$ |
| Operation Junction Temperature | T_J | | | -40 to +125 | | | $^{\circ}C$ |
| Storage temperature | T_{STG} | | | -65 to +150 | | | $^{\circ}C$ |

Notes: 1. Thermal resistance from junction to ambient and junction to lead mounted on P.C.B. with 0.2x0.2 inch copper pad area.

RATING AND CHARACTERISTIC CURVES (CDBC520-G thru CDBC5100-G)

Fig.1 Reverse Characteristics

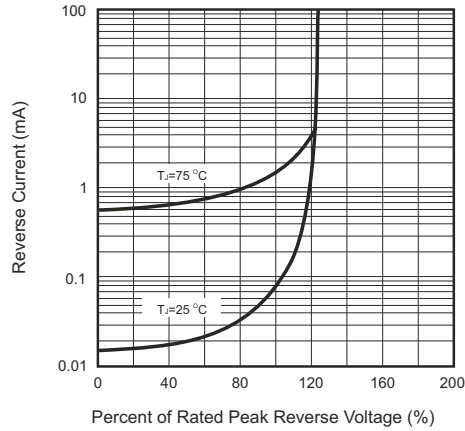


Fig.2 Forward Characteristics

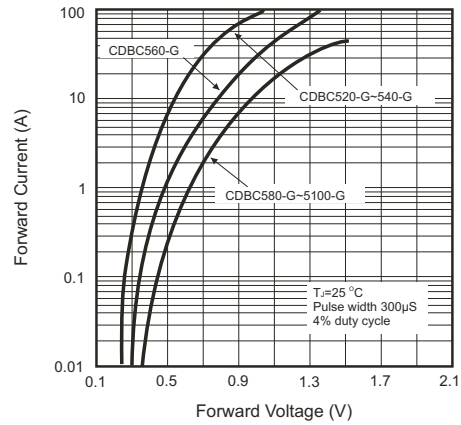


Fig.3 Junction Capacitance

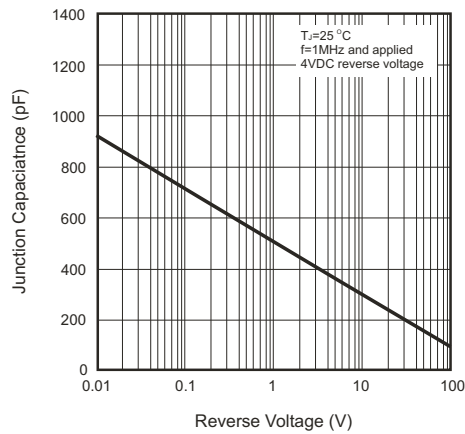


Fig.4 Current Derating Curve

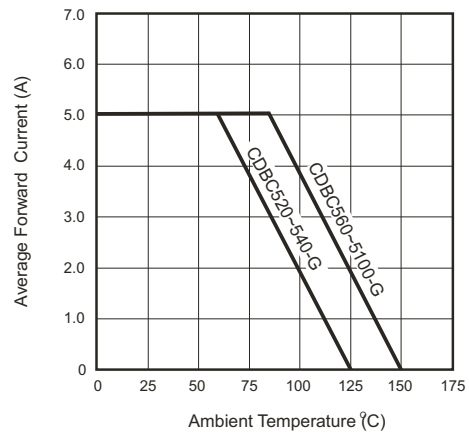
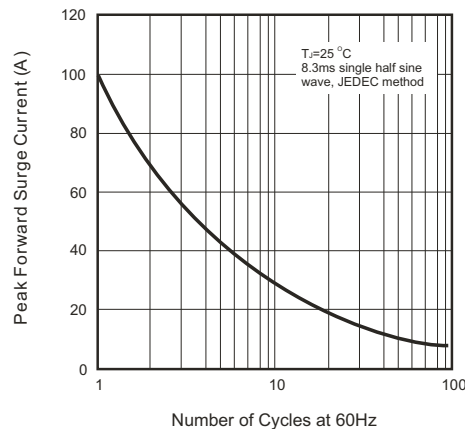
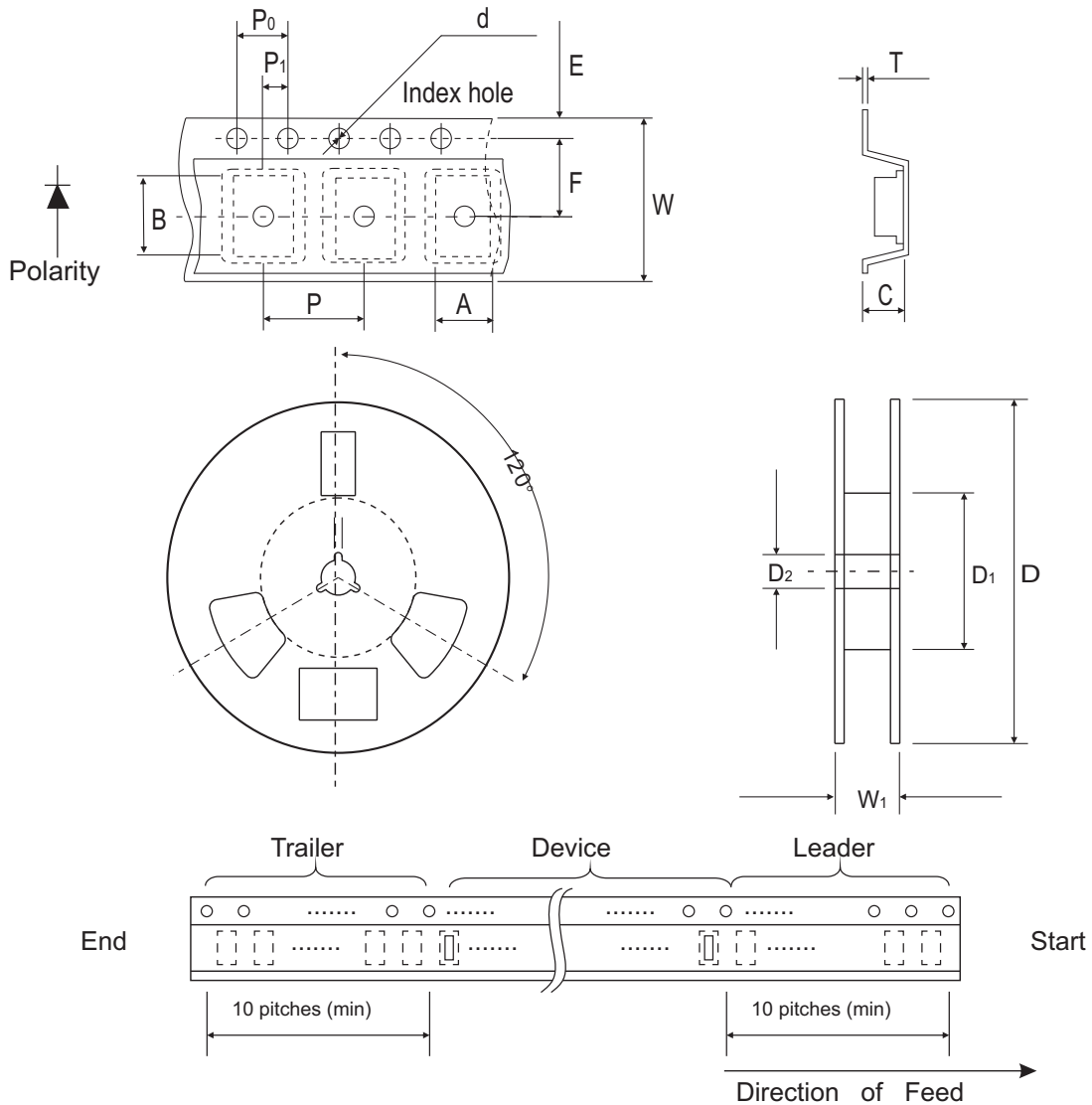


Fig.5 Non-repetitive Forward Surge Current



Reel Taping Specification



| SMC (DO-214AB) | SYMBOL | A | B | C | d | D | D1 | D2 |
|-------------------|--------|-------------|-------------|-------------|---------------|-------|------------|---------------|
| | (mm) | 6.30 (max) | 8.60 (max) | 2.90 (max) | 1.50 ± 0.10 | 330 | 50.0 MIN. | 13.5 ± 1.00 |
| | (inch) | 0.248 (max) | 0.339 (max) | 0.114 (max) | 0.059 ± 0.004 | 12.99 | 1.969 MIN. | 0.531 ± 0.039 |

| SMC (DO-214AB) | SYMBOL | E | F | P | P0 | P1 | W | W1 |
|-------------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|
| | (mm) | 1.75 ± 0.10 | 7.50 ± 0.05 | 8.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 16.0 ± 0.20 | 22.4 (max) |
| | (inch) | 0.689 ± 0.004 | 0.295 ± 0.002 | 0.315 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.630 ± 0.008 | 0.882 (max) |

Marking Code

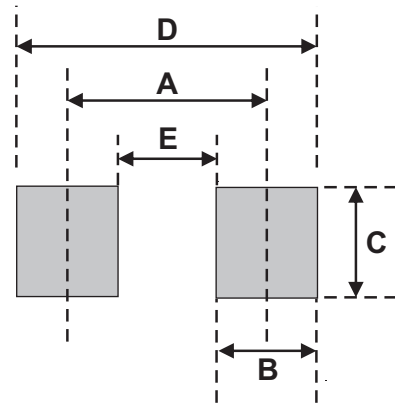
| Part Number | Marking Code |
|-------------|--------------|
| CDBC520-G | 520 |
| CDBC540-G | 540 |
| CDBC560-G | 560 |
| CDBC580-G | 580 |
| CDBC5100-G | 5100 |



xxxx = Product type marking code

Suggested PAD Layout

| SIZE | DO-214AB(SMC) | |
|------|---------------|--------|
| | (mm) | (inch) |
| A | 6.20 | 0.244 |
| B | 1.60 | 0.063 |
| C | 4.80 | 0.189 |
| D | 7.80 | 0.307 |
| E | 4.60 | 0.181 |



Standard Package

| Case Type | Qty per Reel | Reel Size |
|----------------|--------------|-----------|
| | (Pcs) | (inch) |
| DO-214AB (SMC) | 3000 | 13 |