

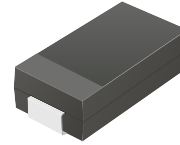
CDBA220SLR-HF Thru. CDBA260SLR-HF

Reverse Voltage: 20 to 40 Volts

Forward Current: 2.0 Amp

RoHS Device

Halogen free

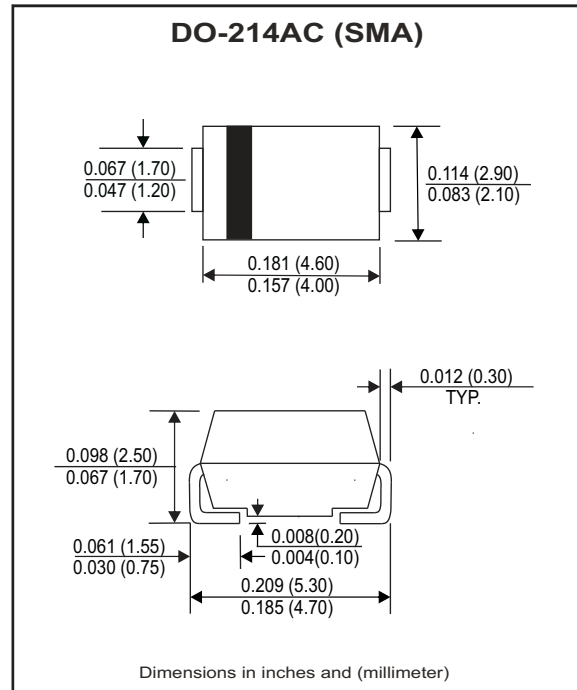


Features

- Low Profile surface mount applications in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

Mechanical data

- Epoxy: UL94-V0 rate flame retardant.
- Case: Molded plastic, DO-214AC / SMA
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- weight: 0.055 grams



Maximum Ratings and Electrical Characteristics

Ratings at $T_a=25^\circ\text{C}$ unless otherwise noted.
Single phase, half wave, 60Hz, resistive or inductive loaded.
For capacitive load, derate current by 20% .

| Parameter | Symbol | CDBA220SLR-HF | CDBA240SLR-HF | CDBA260SLR-HF | Units |
|---|-----------|---------------|---------------|---------------|------------------|
| Max. Repetitive peak reverse voltage | V_{RRM} | 20 | 40 | 60 | V |
| Max. DC blocking voltage | V_{DC} | 20 | 40 | 60 | V |
| Max. RMS voltage | V_{RMS} | 14 | 28 | 42 | V |
| Max. instantaneous forward voltage @ 2.0A, $T_A=25^\circ\text{C}$ | V_F | 0.35 | 0.40 | 0.50 | V |
| Operating Temperature | T_J | -50 to +150 | | | $^\circ\text{C}$ |

| Parameter | Conditions | Symbol | MIN. | TYP. | MAX. | Units |
|----------------------------|--|-----------------|------|------|------|---------------------------|
| Forward rectified current | see Fig.1 | I_o | | | 2.0 | A |
| Forward surge current | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | | | 50 | A |
| Reverse current | $V_R = V_{RRM}$ $T_A=25^\circ\text{C}$ | I_R | | | 0.5 | mA |
| | $V_R = V_{RRM}$ $T_A=100^\circ\text{C}$ | I_R | | | 20 | mA |
| Thermal resistance | Junction to ambient | $R_{\theta JA}$ | | 50 | | $^\circ\text{C}/\text{W}$ |
| Diode junction capacitance | f=1MHz and applied 4V DC reverse Voltage | C_J | | 30 | | pF |
| Storage temperature | | T_{STG} | -50 | | +150 | $^\circ\text{C}$ |

RATING AND CHARACTERISTIC CURVES (CDBA220SLR-HF Thru. CDBA260SLR-HF)

Fig.1- Typical Forward Current Derating Curve

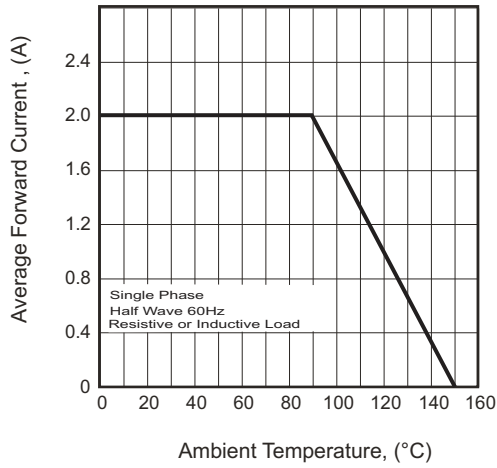


Fig.2- Typical Forward Characteristics

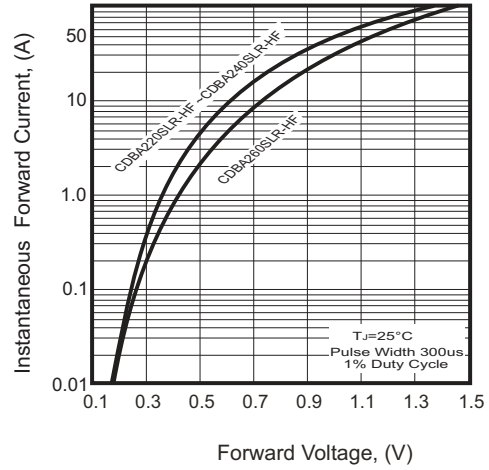


Fig.3- Maximum Non-repetitive Forward Surge Current

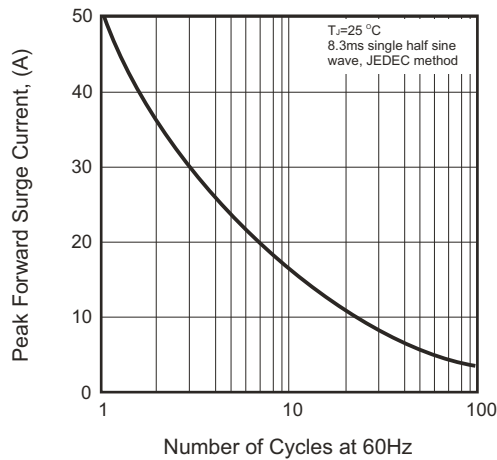


Fig.4- Typical Junction Capacitance

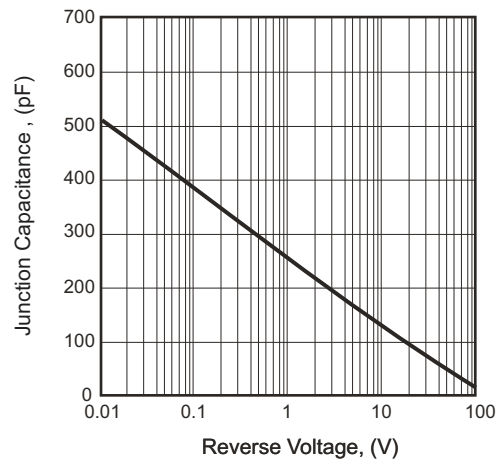
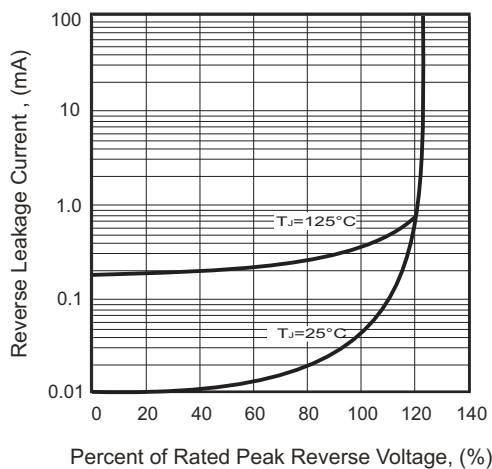
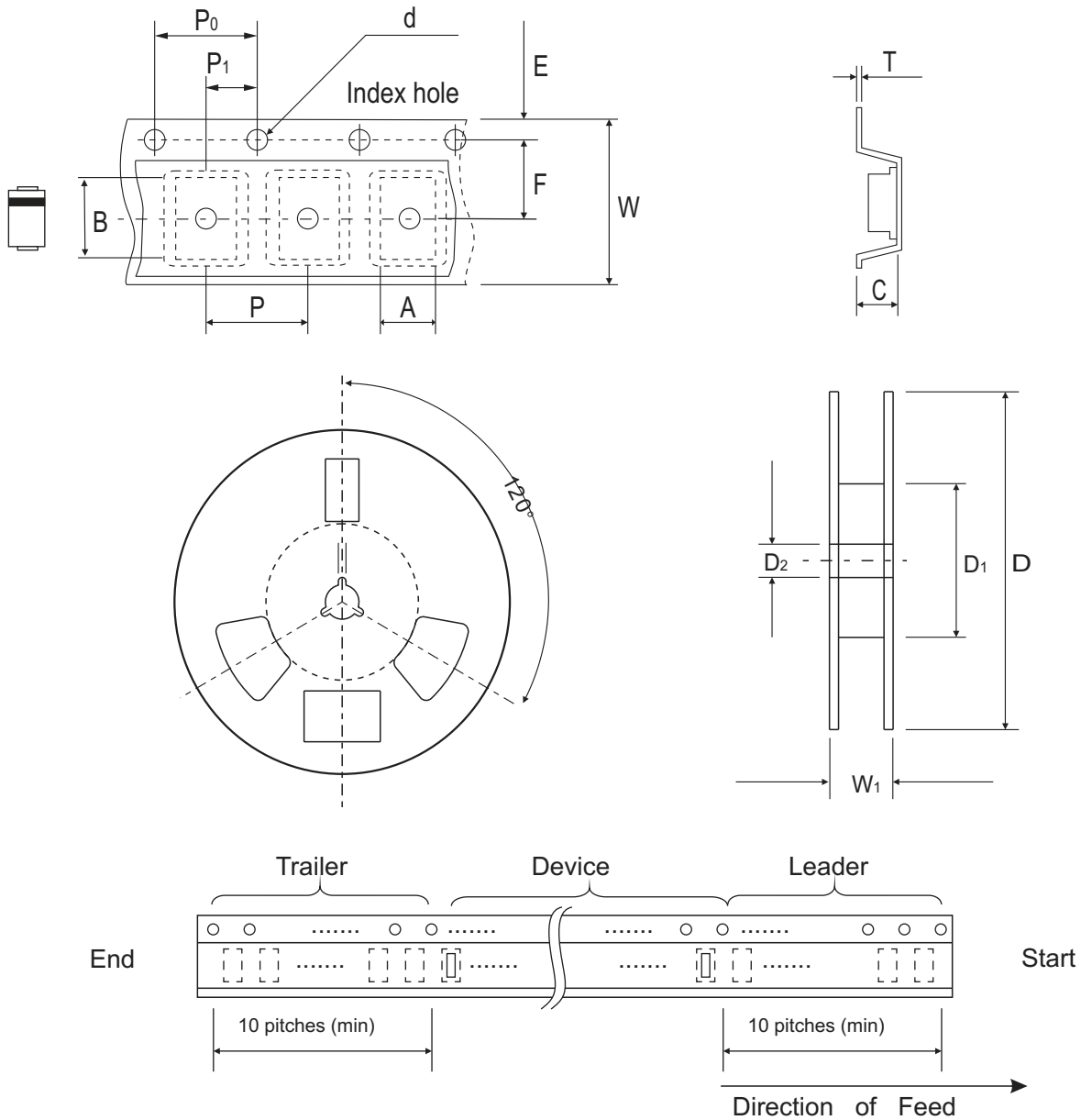


Fig.5- Typical Reverse Characteristics



Reel Taping Specification



| DO-214AC (SMA) | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|-------------------|--------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| | (mm) | 2.70 ± 0.10 | 5.30 ± 0.10 | 2.66 ± 0.10 | 1.50 ± 0.10 | 330 ± 2.00 | 62.0 MIN. | 13.50 ± 0.50 |
| | (inch) | 0.106 ± 0.004 | 0.209 ± 0.004 | 0.105 ± 0.004 | 0.059 ± 0.004 | 12.99 ± 0.079 | 2.441 MIN. | 0.531 ± 0.020 |

| DO-214AC (SMA) | SYMBOL | E | F | P | P ₀ | P ₁ | T | W | W ₁ |
|-------------------|--------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | (mm) | 1.75 ± 0.10 | 5.50 ± 0.10 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.10 | 0.60 ± 0.10 | 12.0 ± 0.30 | 18.40 ± 1.00 |
| | (inch) | 0.069 ± 0.004 | 0.217 ± 0.004 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.236 ± 0.004 | 0.472 ± 0.012 | 0.724 ± 0.039 |

Marking Code

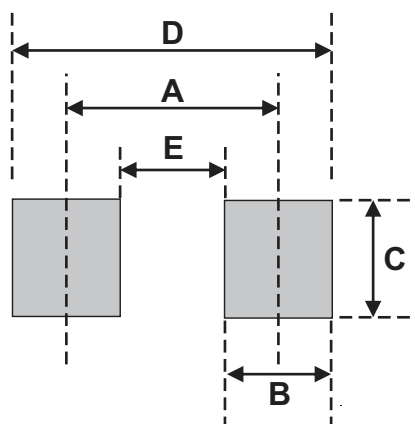
| Part Number | Marking Code |
|---------------|--------------|
| CDBA220SLR-HF | KS22 |
| CDBA240SLR-HF | KS24 |
| CDBA260SLR-HF | KS26 |



xxxx = Product type marking code

Suggested PAD Layout

| SIZE | DO-214AC(SMA) | |
|------|---------------|--------|
| | (mm) | (inch) |
| A | 4.00 | 0.157 |
| B | 2.50 | 0.100 |
| C | 1.70 | 0.068 |
| D | 6.50 | 0.256 |
| E | 1.50 | 0.060 |



Standard Packaging

| Case Type | REEL PACK | |
|-------------------|-----------------|---------------------|
| | REEL (pcs) | Reel Size (inch) |
| DO-214AC (SMA) | 5,000 | 13 |