

**Features**

- International standard package, JEDEC DO-203 AA (DO-4)
- Planar glassivated chips

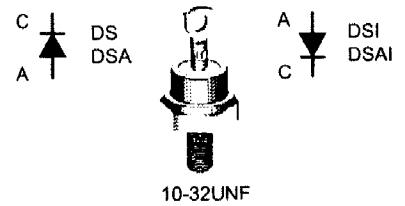
**Applications**

- Supplies for DC power equipment
- DC supply for PWM inverter
- Field supply for DC motors
- Battery DC power supplies

**Advantages**

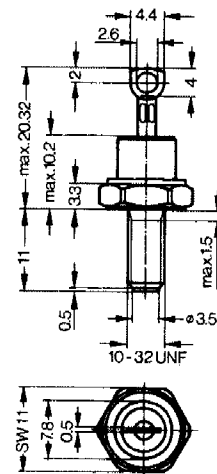
- Space and weight savings
- Simple mounting
- Improved temperature and power cycling
- Reduced protection circuits

**DO-203 AA**



A = Anode C = Cathode

Dimensions in mm (1 mm = 0.0394")



| $V_{RSM}$<br>V | $V_{(BR)min}$ ①<br>V | $V_{RRM}$<br>V | Anode<br>on stud | Cathode<br>on stud |
|----------------|----------------------|----------------|------------------|--------------------|
| 900            | -                    | 800            | DS 17-08A        | DSI 17-08A         |
| 1300           | -                    | 1200           | DS 17-12A        | DSI 17-12A         |
| 1300           | 1300                 | 1200           | DSA 17-12A       | DSAI 17-12A        |
| 1700           | 1750                 | 1600           | DSA 17-16A       | DSAI 17-16A        |
| 1900           | 1950                 | 1800           | DSA 17-18A       | DSAI 17-18A        |

① Only for Avalanche Diodes

| Symbol        | Test Conditions                                     | Maximum Ratings   |
|---------------|---|---|
| $I_{F(RMS)}$  | $T_{VJ} = T_{VJM}$                                  | 40 A  |
| $I_{F(AVJM)}$ | $T_{case} = 125^{\circ}C$ ; 180° sine               | 25 A  |
| $P_{RSM}$     | DSA(I) types, $T_{VJ} = T_{VJM}$ , $t_p = 10 \mu s$ | 7 kW  |
| $I_{FSM}$     | $T_{VJ} = 45^{\circ}C$ ; $V_R = 0$                  | t = 10 ms (50 Hz), sine: 370 A<br>t = 8.3 ms (60 Hz), sine: 400 A                               |
|               | $T_{VJ} = T_{VJM}$ ; $V_R = 0$                      | t = 10 ms (50 Hz), sine: 300 A<br>t = 8.3 ms (60 Hz), sine: 320 A                               |
| $I^2t$        | $T_{VJ} = 45^{\circ}C$ ; $V_R = 0$                  | t = 10 ms (50 Hz), sine: 680 A <sup>2</sup> s<br>t = 8.3 ms (60 Hz), sine: 660 A <sup>2</sup> s |
|               | $T_{VJ} = T_{VJM}$ ; $V_R = 0$                      | t = 10 ms (50 Hz), sine: 450 A <sup>2</sup> s<br>t = 8.3 ms (60 Hz), sine: 430 A <sup>2</sup> s |
| $T_{VJ}$      |   | -40...+180 °C   |
| $T_{VJM}$     |   | 180 °C  |
| $T_{sig}$     |   | -40...+180 °C   |
| $M_d$         | Mounting torque                                     | 2.2-2.8 Nm  |
|               |   | 19-25 lb.in.  |
| Weight        |   | 6 g   |

| Symbol     | Test Conditions                       | Characteristic Values |
|------------|---------------------------------------|-----------------------|
| $I_R$      | $T_{VJ} = T_{VJM}$ ; $V_R = V_{RRM}$  | ≤ 4 mA                |
| $V_F$      | $I_F = 55 A$ ; $T_{VJ} = 25^{\circ}C$ | ≤ 1.36 V              |
| $V_{T0}$   | For power-loss calculations only      | 0.85 V                |
| $r_T$      | $T_{VJ} = T_{VJM}$                    | 8 mΩ                  |
| $R_{thJC}$ | DC current                            | 1.5 K/W               |
| $R_{thJH}$ | DC current                            | 2.1 K/W               |
| $d_s$      | Creepage distance on surface          | 2.05 mm               |
| $d_A$      | Strike distance through air           | 2.05 mm               |
| a          | Max. allowable acceleration           | 100 m/s <sup>2</sup>  |

