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U.S.A.

**DS 17 DSI 17**  
**DSA 17 DSAI 17**

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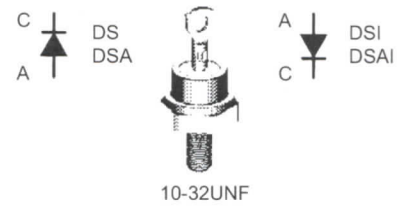
**Rectifier Diode**  
**Avalanche Diode**

**$V_{RRM} = 800-1800 V$**   
 **$I_{F(RMS)} = 40 A$**   
 **$I_{F(AV)M} = 25 A$**

$V_{RSM}$ V	$V_{(BR)min}$ ① V	$V_{RRM}$ V	Anode on stud	Cathode 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

DO-203 AA



A = Anode C = Cathode

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

**Features**

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

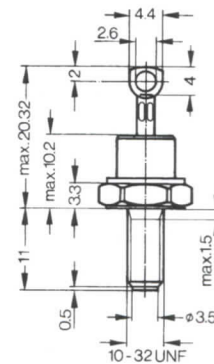
**Applications**

- 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

Dimensions in mm (1 mm = 0.0394")



Symbol	Test Conditions	Characteristic Values
$I_R$	$T_{VJ} = T_{VJM}$ ; $V_R = V_{RRM}$	$\leq 4$ mA
$V_F$	$I_F = 55 A$ ; $T_{VJ} = 25^{\circ}C$	$\leq 1.36$ 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>

NJ Semi-Conductors reserves the right to change test conditions, parameters, and dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

