

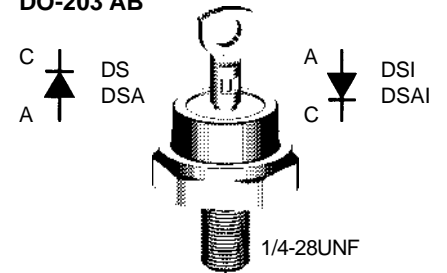
Rectifier Diode Avalanche Diode

$V_{RRM} = 800-1800 \text{ V}$
 $I_{F(RMS)} = 80 \text{ A}$
 $I_{F(AV)M} = 49 \text{ A}$

V_{RSM} V	$V_{(BR)min}$ ① V	V_{RRM} V	Anode on stud	Cathode on stud
900	-	800	DS 35-08A	DSI 35-08A
1300	-	1200	DS 35-12A	DSI 35-12A
1300	1300	1200	DSA 35-12A	DSAI 35-12A
1700	1750	1600	DSA 35-16A	DSAI 35-16A
1900	1950	1800	DSA 35-18A	DSAI 35-18A

① Only for Avalanche Diodes

DO-203 AB



A = Anode C = Cathode

Symbol	Test Conditions	Maximum Ratings	
$I_{F(RMS)}$	$T_{VJ} = T_{VJM}$	80	A
$I_{F(AVM)}$	$T_{case} = 100^{\circ}\text{C}; 180^{\circ}$ sine	49	A
P_{RSM}	DSA(I) types, $T_{VJ} = T_{VJM}$, $t_p = 10 \mu\text{s}$	11	kW
I_{FSM}	$T_{VJ} = 45^{\circ}\text{C}; V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	650 A 690 A
	$T_{VJ} = T_{VJM}; V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	600 A 640 A
I^2t	$T_{VJ} = 45^{\circ}\text{C}; V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	2100 A ² s 2000 A ² s
	$T_{VJ} = T_{VJM}; V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	1800 A ² s 1700 A ² s
T_{VJ}		-40...+180	°C
T_{VJM}		180	°C
T_{stg}		-40...+180	°C
M_d	Mounting torque	4.5-5.5	Nm
		40-49	lb.in.
Weight		15	g

Features

- International standard package, JEDEC DO-203 AB (DO-5)
- Planar glassivated chips

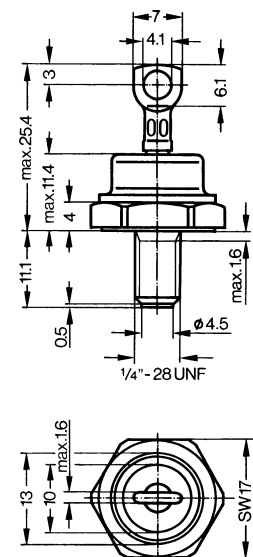
Applications

- High power rectifiers
- Field supply for DC motors
- 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	$T_{VJ} = T_{VJM}; V_R = V_{RRM}$	≤	4 mA
V_F	$I_F = 150 \text{ A}; T_{VJ} = 25^{\circ}\text{C}$	≤	1.55 V
V_{T0}	For power-loss calculations only		0.85 V
r_T	$T_{VJ} = T_{VJM}$		4.5 mΩ
R_{thJC}	DC current		1.05 K/W
R_{thJH}	DC current		1.25 K/W
d_s	Creepage distance on surface		4.05 mm
d_A	Strike distance through air		3.9 mm
a	Max. allowable acceleration		100 m/s ²

Data according to IEC 60747
 IXYS reserves the right to change limits, test conditions and dimensions