

Rectifier Diode Avalanche Diode

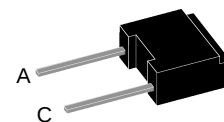
$$V_{RRM} = 1200-1800 \text{ V}$$

$$I_{F(RMS)} = 7 \text{ A}$$

$$I_{F(AV)M} = 2.3 \text{ A}$$

V_{RSM} V	$V_{(BR)min}$ ① V	V_{RRM} V	Standard Type	Avalanche Types
1300	1300	1200	DS 1-12D	DSA 1-12D
1700	1750	1600		DSA 1-16D
1900	1950	1800		DSA 1-18D

① Only for Avalanche Diodes



A = Anode C = Cathode

Symbol	Test Conditions	Maximum Ratings	
I_{FRMS}	$T_{VJ} = T_{VJM}$	7	A
$I_{F(AV)M}$	$T_{amb} = 45^{\circ}C$; $R_{thJA} = 38 \text{ K/W}$; 180° sine	2.3	A
	$T_{amb} = 45^{\circ}C$; $R_{thJA} = 80 \text{ K/W}$; 180° sine	1.3	A
P_{RSM}	DSA types, $T_{VJ} = T_{VJM}$, $t_p = 10 \mu s$	1.6	kW
I_{FSM}	$T_{VJ} = 45^{\circ}C$; $V_R = 0$; $t = 10 \text{ ms}$ (50 Hz), sine	110	A
	$t = 8.3 \text{ ms}$ (60 Hz), sine	118	A
	$T_{VJ} = T_{VJM}$; $V_R = 0$; $t = 10 \text{ ms}$ (50 Hz), sine	100	A
	$t = 8.3 \text{ ms}$ (60 Hz), sine	104	A
I^2t	$T_{VJ} = 45^{\circ}C$; $V_R = 0$; $t = 10 \text{ ms}$ (50 Hz), sine	60	A ² s
	$t = 8.3 \text{ ms}$ (60 Hz), sine	58	A ² s
	$T_{VJ} = T_{VJM}$; $V_R = 0$; $t = 10 \text{ ms}$ (50 Hz), sine	50	A ² s
	$t = 8.3 \text{ ms}$ (60 Hz), sine	45	A ² s
T_{VJ}		-40...+150	°C
T_{VJM}		150	°C
T_{stg}		-40...+150	°C
Weight		0.8	g

Features

- Plastic standard package
- Planar glassivated chips

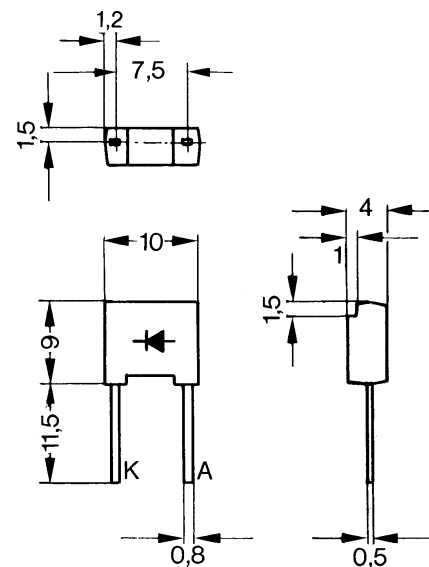
Applications

- Low power rectifiers
- Field supply for DC motors
- Power supplies
- High voltage rectifiers

Advantages

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

Dimensions in mm (1 mm = 0.0394")



Symbol	Test Conditions	Characteristic Values	
I_R	$T_{VJ} = T_{VJM}$; $V_R = V_{RRM}$	≤	0.7 mA
V_F	$I_F = 7 \text{ A}$; $T_{VJ} = 25^{\circ}C$	≤	1.3 V
V_{T0}	For power-loss calculations only	0.8	V
r_T	$T_{VJ} = T_{VJM}$	67	mΩ
R_{thJA}	Forced air cooling with 1.5 m/s, $T_{amb} = 45^{\circ}C$ Soldered on to PC board, $T_{amb} = 45^{\circ}C$	38 80	K/W K/W
d_s	Creepage distance on surface	8.5	mm
d_A	Strike distance through air	6.7	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