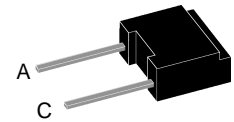
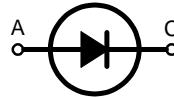


# Rectifier Diode Avalanche Diode

**$V_{RRM} = 1200-1800 \text{ V}$**   
 **$I_{F(RMS)} = 7 \text{ A}$**   
 **$I_{F(AV)M} = 2.3 \text{ A}$**

$V_{RSM}$ 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
$I_{F(AV)M}$	$T_{amb} = 45^{\circ}\text{C}; R_{thJA} = 38 \text{ K/W}; 180^{\circ} \text{ sine}$	2.3	A
	$T_{amb} = 45^{\circ}\text{C}; R_{thJA} = 80 \text{ K/W}; 180^{\circ} \text{ sine}$	1.3	A
$P_{RSM}$	DSA types, $T_{VJ} = T_{VJM}, t_p = 10 \mu\text{s}$	1.6	kW
$I_{FSM}$	$T_{VJ} = 45^{\circ}\text{C}; V_R = 0;$ $t = 10 \text{ ms (50 Hz), sine}$	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
$I^2t$	$T_{VJ} = 45^{\circ}\text{C}; V_R = 0;$ $t = 10 \text{ ms (50 Hz), sine}$	60	A <sup>2</sup> s
	$t = 8.3 \text{ ms (60 Hz), sine}$	58	A <sup>2</sup> s
	$T_{VJ} = T_{VJM}; V_R = 0;$ $t = 10 \text{ ms (50 Hz), sine}$	50	A <sup>2</sup> s
	$t = 8.3 \text{ ms (60 Hz), sine}$	45	A <sup>2</sup> 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

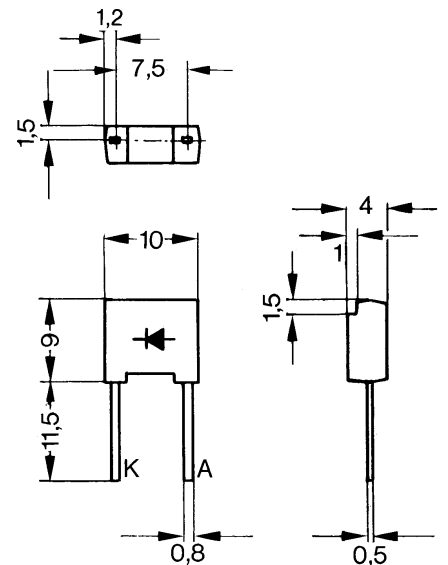
### Applications

- 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
$V_F$	$I_F = 7 \text{ A}; T_{VJ} = 25^{\circ}\text{C}$	≤ 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, $T_{amb} = 45^{\circ}\text{C}$	38	K/W
	Soldered on to PC board, $T_{amb} = 45^{\circ}\text{C}$	80	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 <sup>2</sup>

Data according to IEC 60747

IXYS reserves the right to change limits, test conditions and dimensions