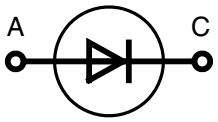
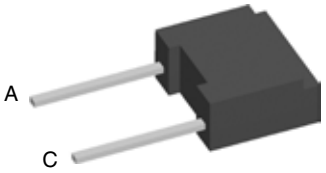
Avalanche Diode

V_{RRM} = 1200-1800 V
$I_{F(RMS)}$ = 7 A
I_{FAVM} = 2.3 A

Preliminary data

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





A = Anode, C = Cathode

Features

- Plastic standard package
- Planar passivated chips

Applications

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

Advantages

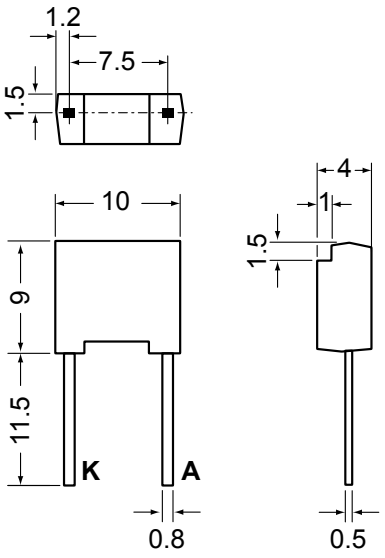
- Space and weight savings
- Simple PCB mounting
- Improved temperature & power cycling
- Reduced protection circuits

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

Symbol	Conditions	Characteristic Values typ.	max.	
I_R	$V_R = V_{RRM}$ $T_{VJ} = T_{VJM}$		0.7	mA
V_F	I_F = 7 A T_{VJ} = 25°C		1.34	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°C		38	K/W
	Soldered on to PC board, T_{amb} = 45°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^2

Data according to IEC 60747

Dimensions in mm (1 mm = 0.0394")



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