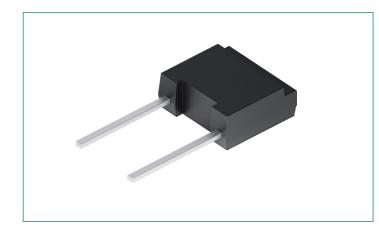
Diode Datasheet

IEC60747



Preliminary Data

Туре	V _{RSM} (V)	V(_{BR)min} (V)	V _{RRM} (V)
DSA1-12D	1300	1300	1200
DSA1-16D	1700	1750	1600
DSA1-18D	1900	1950	1800

Features:

Plastic standard package

Planar passivated chips

Advantages:

- Space and weight savings
- Simple PCB mounting
- Reduced protection circuits

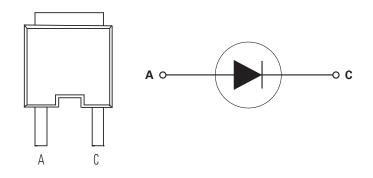
Applications:

- Low power rectifiers
- Field supply for DC motors
- Improved temperature and power cycling
- Power supplies
- High voltage rectifiers

Product Summary

Characteristic	Value	Unit
V _{RRM}	1200–1800	V
I _{F(RMS)}	7	А
I _{FAVM}	2.3	А

Pinout Diagram



A: Anode; C: Cathode

Maximum Ratings

Symbol	Characteristics	Conditions	Value	Units	
I _{F(RMS)}	RMS Forward Current	$T_{VJ} = T_{VJM}$	7	A	
I _{F(AV)M}	Maximum Average Ferward Current	$T_{amb} = 45^{\circ}$ C; $R_{thJA} = 38$ K/W; 180° sine	2.3	А	
	Maximum Average Forward Current	$T_{amb} = 45^{\circ}$ C; $R_{thJA} = 80$ K/W; 180° sine	1.3	А	
P _{RSM}	Maximum Surge Reverse Power Dissipation	T_{VJM} ; $t_p = 10 \text{ ms}$	1.6	kW	
I _{FSM}		$T_{VJ} = 45^{\circ}C$; t = 10 ms (50 Hz), sine	110		
	Maximum Surge Forward Current	$T_{VJ} = 45^{\circ}C$; t = 8.3 ms (60 Hz), sine	118	- A	
		T _{vJ} = 150°C; t = 10 ms (50 Hz), sine	100	Δ	
		$T_{VJ} = 150^{\circ}C$; t = 8.3 ms (60 Hz), sine	104	A	
l²t		$T_{VJ} = 45^{\circ}C$; t = 10 ms (50 Hz), sine	60	A ² s	
	I²t Value for Fusing	T _{vJ} = 45°C; t = 8.3 ms (60 Hz), sine	58	A-S	
		T _{vJ} = 150°C; t = 10 ms (50 Hz), sine	50	A 2 -	
		$T_{VJ} = 150^{\circ}$ C; t = 8.3 ms (60 Hz), sine	45	A ² s	
T _{VJ}	Virtual Junction Temperature	_	-40 to +150	°C	
T _{VJM}	Maximum Virtual Junction Temperature	_	150	°C	
T _{stg}	Storage Temperature	_	-40 to +150	°C	

Static Characteristics

Cumhal	Characteristics	Conditions				Units
Symbol	Characteristics			Тур.	Max.	Units
I _R	Reverse Current	$T_{VJ} = T_{VJM}$	$V_{R} = V_{RRM}$	-	0.7	mA
V _F	Forward Voltage	I _F = 7 A	$T_{VJ} = 25^{\circ}C$	-	1.34	V
V _{TO}	Threshold Voltage	For power-loss calculation only		-	0.8	V
r _T	Slope Resistance	$T_{VJ} = T_{VJM}$		-	67	mΩ

Thermal Specifications

Cumhal	Characteristics	Conditions		Value	
Symbol	Characteristics			Max.	Unit
R _{thJA}	Maximum Thermal Resistance, Junction to Ambient	Forced Air Cooling with 1.5 m/s; $T_{amb} = 45^{\circ}C$	-	38	K/W
		Soldered on to PC board; $T_{amb} = 45^{\circ}C$	-	80	K/W

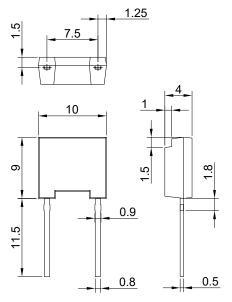
Physical Specifications

Symbol	Characteristics	Conditions	Value		Unit
	Characteristics	Conditions		Max.	
wt	Weight	_	0.8	-	g
ds	Creep distance on surface	_	—	8.5	mm
d _A	Strike distance through air	_	-	6.7	mm
а	Acceleration	_	_	100	m/s²



Part Outline Drawing

Dimension in mm (1 mm = 0.0394")



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Part of: