

Fast recovery diode -----A696/2000V

GENERAL PURPOSE HIGH POWER STANDARD RECTIFIER

Features:

- . All Diffused Structure
- . High Surge rating
- . Soft Reverse Recovery
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device

Typical Applications:

- . Rectifier for Drives Applications
- . Medium voltage converters
- . Pulsed power applications
- . Crowbar Applications

ELECTRICAL CHARACTERISTICS AND RATINGS

Reverse Blocking

V_{RRM} (1)	V_{RSM} (1)
2000	2100

 V_{RRM} = Repetitive peak reverse voltage

 V_{RSM} = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage	I_{RRM}	20 mA 50 mA (3)
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Notes:

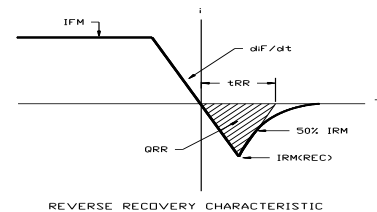
 All ratings are specified for $T_j=25^\circ\text{C}$ unless otherwise stated.

 (1) All voltage ratings are specified for an applied 50Hz/60Hz sinusoidal waveform over the temperature range -40 to $+150^\circ\text{C}$.

(2) 10 msec. max. pulse width

 (3) Maximum value for $T_j = 150^\circ\text{C}$.

(4) See parameter definition below :


Conducting - on state

Parameter	Symbol	Min	Max.	Typ	Units	Conditions
Max. Average value of on-state current	$I_{F(AV)M}$		1000		A	Sinewave, 180° conduction, $T_c=90^\circ\text{C}$
RMS value of on-state current	$I_{F(RMS)M}$		1600		A	Nominal value
Peak one cycle surge (non repetitive) current	I_{FSM}		14		kA	$T_j=25^\circ\text{C}$, $V_R=0,8V_{RRM}$, $t_p=10\text{ms}$
I square t	I^2t		600		kA^2s	10 msec
Peak on-state voltage	V_F		1.9		V	$I_F = 1000\text{ A}$; $T_j = 25^\circ\text{C}$
Reverse Recovery Current (4)	$I_{RM(REC)}$		-		A	$I_{FM} = 1000\text{ A}$; $dI_F/dt = 10\text{ A}/\mu\text{s}$, $T_j = T_j\text{ MAX.}$
Reverse Recovery Charge (4)	Q_{rr}		-		μC	
Reverse Recovery Time (4)	t_{rr}		-	3.0	μs	

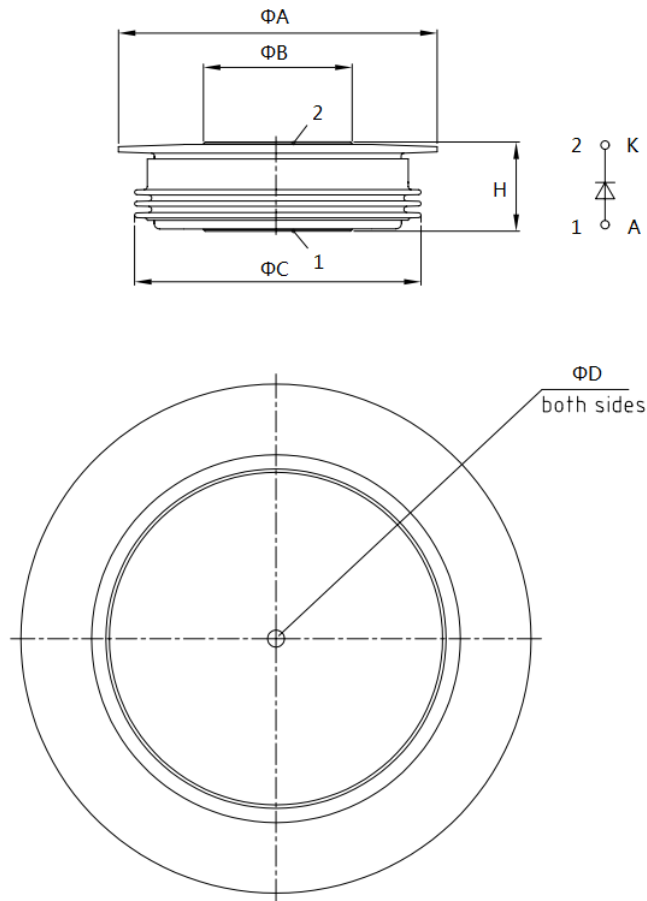
* For guaranteed maximum values, contact factory

THERMAL AND MECHANICAL CHARACTERISTICS

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T _j	-40	+150		°C	
Storage temperature	T _{stg}	-40	+150		°C	
Thermal resistance - junction to case	R _{θ(j-c)}		40 80		K/kW	Double side cooling Single sided cooled
Thermal resistance - case to sink	R _{θ(c-s)}		15 30		K/kW	Double side cooling Single sided cooled
Thermal resistance - junction to sink	R _{θ(j-s)}		- -		K/kW	Double side cooling Single sided cooled
Mounting force	P	-	-	17.8	kN	±20%
Weight	W			225	Kg	about

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS



Sym	A	B	C	D	H
mm	59	34	53	3.5x3	26±1