

**GENERAL PURPOSE HIGH POWER FAST 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)
1600	1700

 $V_{RRM}$  = Repetitive peak reverse voltage

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

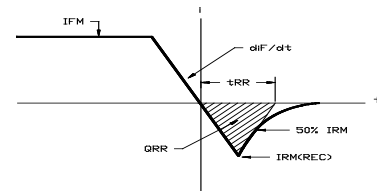
Repetitive peak reverse leakage	$I_{RRM}$	20 mA 50 mA (3)
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**Notes:**

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

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

(2) 10 msec. max. pulse width

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


REVERSE RECOVERY CHARACTERISTIC

**Conducting - on state**

Parameter	Symbol	Min	Max.	Typ	Units	Conditions
Max. Average value of on-state current	$I_{F(AV)M}$		859		A	Sinewave, 180° conduction, $T_c=55^\circ\text{C}$
RMS value of on-state current	$I_{F(RMS)M}$		1742		A	Nominal value
Peak one cycle surge (non repetitive) current	$I_{FSM}$		10		kA	$T_j=25^\circ\text{C}$ , $V_R=0,8V_{RRM}$ , $t_p=10\text{ms}$
I square t	$I^2t$		500		$\text{kA}^2\text{s}$	10 msec
Peak on-state voltage	$V_F$		1.55		V	$I_F = 1200\text{ A}$ ; $T_j = 125^\circ\text{C}$
Reverse Recovery Current (4)	$I_{RM(REC)}$		-	<b>75</b>	A	$I_{FM} = 800\text{ A}$ ; $di_F/dt = 50\text{ A}/\mu\text{s}$ , $T_j = T_j\text{ MAX.}$
Reverse Recovery Charge (4)	$Q_{rr}$		-	<b>280</b>	$\mu\text{C}$	
Reverse Recovery Time (4)	$t_{rr}$		-	3.0	$\mu\text{s}$	

\* For guaranteed maximum values, contact factory

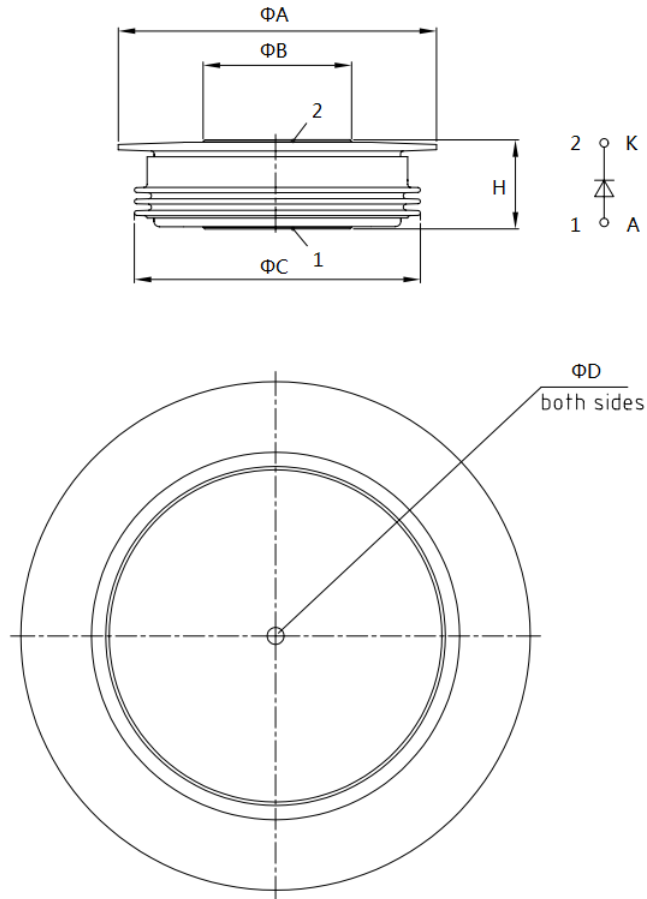
**THERMAL AND MECHANICAL CHARACTERISTICS**

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	$T_j$	-40	+125		$^\circ\text{C}$	
Storage temperature	$T_{stg}$	-40	+150		$^\circ\text{C}$	
Thermal resistance - junction to case	$R_{\theta(j-c)}$		0.044		K/W	Double side cooling Single sided cooled
Thermal resistance - case to sink	$R_{\theta(c-s)}$		0.088		K/W	Double side cooling Single sided cooled
Thermal resistance - junction to sink	$R_{\theta(j-s)}$		-		K/kW	Double side cooling Single sided cooled
Mounting force	P	10	20	-	kN	$\pm 20\%$
Weight	W			-	Kg	about

\* Mounting surfaces smooth, flat and greased

**CASE OUTLINE AND DIMENSIONS**

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Sym	A	B	C	D	H
mm	59	34	53	3.5×3	26±1