



Key Parameters

I_{FAV}	=	2000 A
V_{RRM}	=	200 - 1000 V

MAXIMUM ALLOWABLE RATINGS

Symbols and parameters			Value	Unit
V_{RRM}	Repetitive peak reverse voltage	$T_j = -60\text{ °C} \dots +175\text{ °C}$	200 - 1000	V
V_{RSM}	Non-repetitive peak reverse voltage	$T_j = -60\text{ °C} \dots +175\text{ °C}$	300 - 1100	V
I_{RRM}	Repetitive pulse reverse current	$T_j = 175\text{ °C}$, $V_R = V_{RRM}$	70	mA
$I_{F(AV)}$	Maximum allowable average forward current	$T_C = 85\text{ °C}$, $f = 50\text{ Hz}$	2400	A
I_{FRMS}	RMS forward current	$T_C = 85\text{ °C}$, $f = 50\text{ Hz}$	3760	A
I_{FSM}	Surge forward current	$V_R = 0$, $T_j = 175\text{ °C}$, $t_p = 10\text{ ms}$	24.0	kA
I^2t	Safety factor		$2880 \cdot 10^3$	A^2s

CHARACTERISTICS

Symbols and parameters			Value			Unit
			min	typ	max	
V_{FM}	Pulse forward voltage	$T_j = 25\text{ °C}$, $I_F = 6280\text{ A}$	-	-	1.40	V
V_{TO}	Threshold voltage	$T_j = 175\text{ °C}$, $I_F = 3140\text{ - }9420\text{ A}$	-	-	0.73	V
r_T	Dynamic resistance	$T_j = 175\text{ °C}$, $I_F = 3140\text{ - }9420\text{ A}$	-	-	0.11	$m\Omega$

THERMAL PARAMETERS

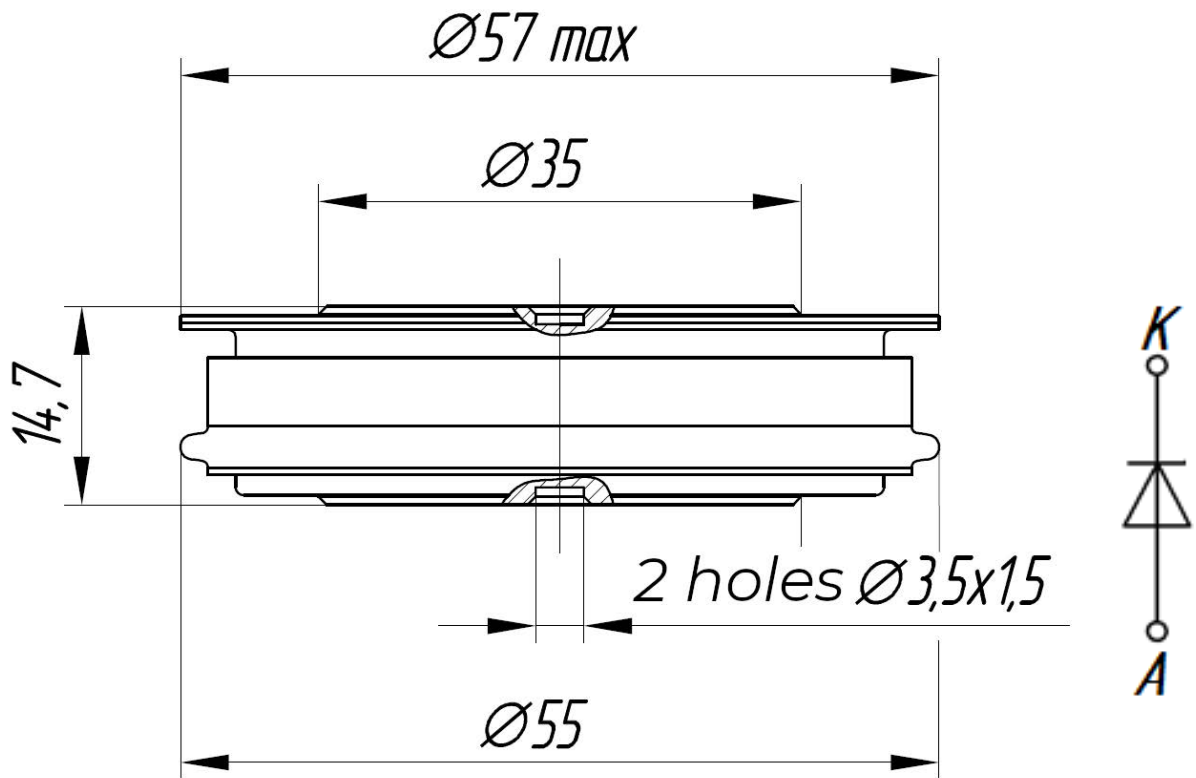
Symbols and parameters			Value	Unit
$R_{th(j-c)}$	Thermal resistance, junction - case	DC: double-sided	0.027	°C/W
$R_{th(j-cA)}$		DC: anode side	0.054	
$R_{th(j-cK)}$		DC: cathode side	0.054	
$R_{th(c-h)}$	Thermal resistance, case to heatsink	double-sided cooling	0.01	
		single-sided cooling	0.02	
T_j	Transition temperature		-60... +175	°C
T_{stg}	Storage temperature		-60... +50	

MECHANICAL PARAMETERS

Symbols and parameters			Value	Unit
F	Clamping force		13.5 – 16.5	kN
W	Weight		0.16	kg
a	Maximum permissible acceleration		100	m/s ²

DIMENSIONS

Housing type: PD41



K – cathode;
A – anode;

All dimensions in millimeters