



STANDARD RECOVERY DIODES

High Power Diodes Hockey Puk Version R2000 K...C Series

Types : R2000K 20C to R2000K 45C

FEATURES

- € Wide current range
- € High voltage ratings up to 4500 V
- € High surge current capabilities
- € Case style DO-200AC (K-PUK)

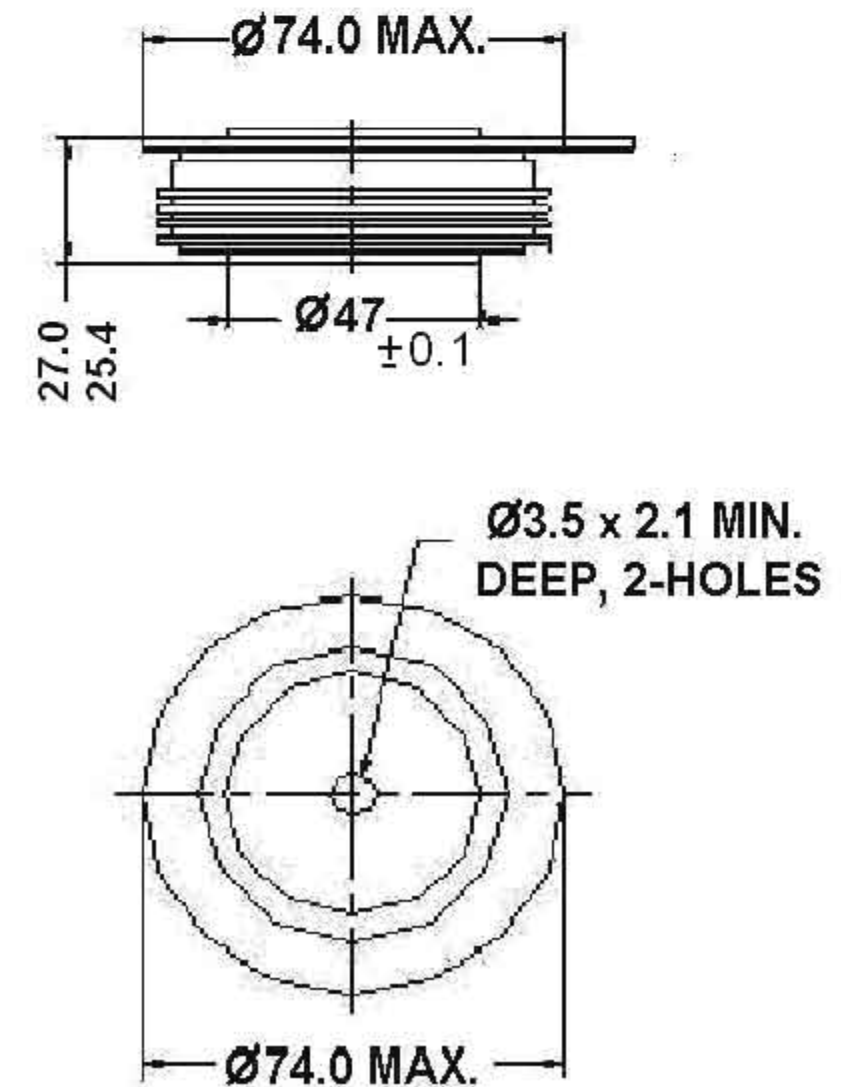
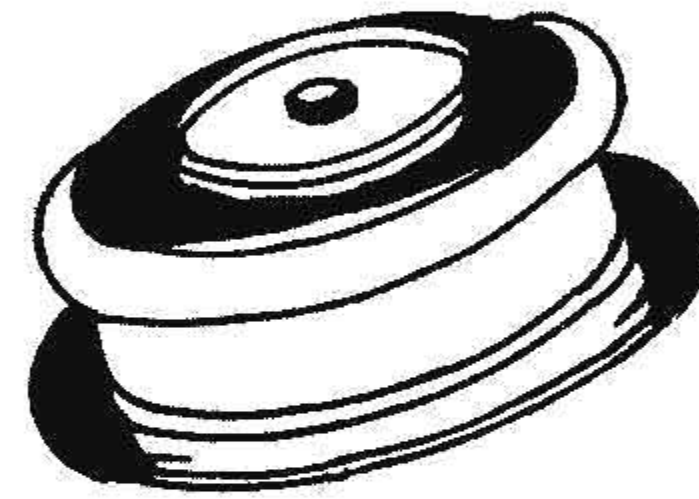
TYPICAL APPLICATIONS

- € Converters
- € High power drives
- € Power supplies
- € Traction Application

MAJOR RATINGS & CHARACTERISTICS

Parameters	R2000K	Units
$I_{F(AV)}$	2080	A
@ T_{hs}	55	°C
$I_{F(RMS)}$	3265	A
@ T_{hs}	55	°C
I_{FSM} @ 50 Hz	20200	A
I^2t @ 50 Hz	2040	KA ² s
V_{RRM} range	2000-4500	V
T_J	-40 to 160	°C

R2000K (K - PUK)



All dimension in millimeters

STANDARD RECOVERY DIODES

R2000K

ELECTRICAL SPECIFICATION VOLTAGE RATINGS

Type Number	Voltage Code	V_{RRM} , max. repetitive peak reverse voltage V	V_{RRM} , max. non-repetitive peak reverse voltage V	I_{DRM} max. @ $T_J = T_J$ max. mA
R2000K	20	2000	2100	75
	24	2400	2500	
	28	2800	2900	
	32	3200	3300	
	36	3600	3700	
	40	4000	4100	
	45	4500	4600	

FORWARD CONDUCTION

	Parameter	R2000K	Units	Conditions	
$I_{F(AV)}$	Max. average Forward current @ heat sink temperature	2080	A	180° conduction, half sine wave double side cooled	
		55	°C		
$I_{F(RMS)}$	Max. RMS Forward current	3265	A	@55°C heat sink temperature double side cooled	
I_{FSM}	Max. peak one cycle Forward non-repetitive surge current	20200		t = 10ms	Sinusoidal half wave, Initial $T_J = T_J$ max.
I^2t	Maximum I^2t for fusing	2040		kA ² s	
$I^2\sqrt{t}$	Maximum $I^2\sqrt{t}$ for fusing	20400	kA ² √s	t = 0.1 to 10ms. No voltage reapplied.	
V_{TO}	Threshold voltage	0.89	V	$T_J = T_J$ max.	
r_f	Forward slope resistance	0.33	mΩ	$T_J = T_J$ max.	
V_{FM}	Max. Forward voltage drop	1.81	V	$I_{pk} = 4000A$, $T_J = T_J$ max., $t_p = 10ms$ sine pulse	

THERMAL AND MECHANICAL SPECIFICATION

	Parameter	R2000K	Units	Conditions
T_J	Max. operating temperature range	-40 to 160	°C	
T_{stg}	Max. storage temperature range	-55 to 160		
R_{thJ-hs}	Max. thermal resistance, junction to heat sink	0.020	K/W	DC operation double side cooled
F	Mounting force, ±10%	22250 (2250)	N (kg)	
w t	Approximate weight	425	g	
	Case style	DO-200ACK-PUK)		See outline