



Ruttonsha International Rectifier Ltd.

High Power Diode

Hockey Puk Version
R12000 T 06 Series

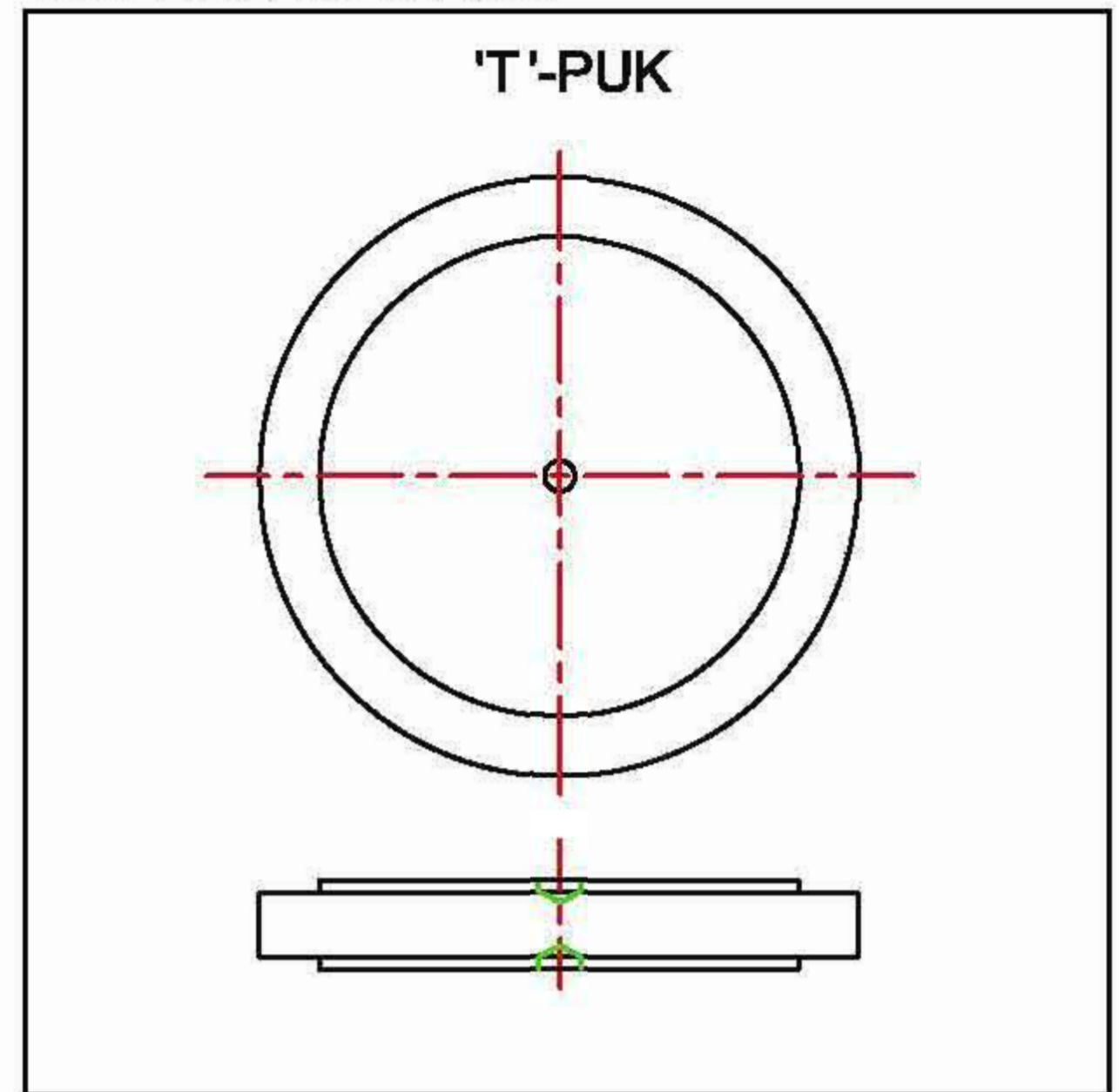
FEATURES

- * *Wide current range*
- * *High surge current capabilities*
- * *Case style T -PUK*

TYPICAL APPLICATION

- * *Welding diode*
- * *Converters*
- * *High power drives*
- * *Traction Application*

OUT LINE DIAGRAM



MAJOR RATING & CHARACTERISTICS

Parameters	R12000 T	Units
$I_{F(AV)}$ @ $T_c=55\text{ }^\circ\text{C}$	12000	A
I_{FSM} @ 50Hz	85	kA
I^2t @ 50Hz	36125 x 1E3	A ² s
V_{RRM} range	400 to 600	V
T_J	-40 to 180	$^\circ\text{C}$

High Power Diode

R12000 T Series

ELECTRICAL SPECIFICATION

VOLTAGE RATINGS

Type Number	Voltage Code	V_{RMM} max. repetitive peak reverse voltage V	V_{RMM} max. Non-repetitive peak reverse voltage	I_{DRM} max. @ $T_J = T_J$ Max. mA
R12000 T	04	400	500	200
	06	600	700	

FORWARD CONDUCTION

	Parameter	R12000 T	Unit	Conditions
$I_{F(AV)}$	Mean forward current	12000	A	180° sin, 50Hz, $T_h=55^\circ\text{C}$, double side cooled
I_{FSM}	Surge forward current	85	KA	Sine wave 10ms without reverse voltage
I^2t	I^2t	36125X1E3	A ² s	
V_{FM}	Forward voltage	0.87	V	Forward current =4500A
$V_{F(TO)}$	Threshold voltage	0.70	V	$T_j=T_j$ max,
r_t	Forward slope resistance	0.15	m Ω	$T_j=T_j$ max,

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MOUNTING

R _{th(j-h)}	Thermal impedance DC Junction to heat sink	9.5	°C/kW	double side cooled
R _{th(c-h)}	Thermal Impedance	2.0	°C/kW	Case to heat sink, double side cooled
T _j	Operating junction temperature	-40/ 180	°C	
F	Mounting force	46.0/ 54.0	kN	
	Approx. Weight	410	g	

ORDERING INFORMATION :- R12000 T 06

STANDARD SPECIFICATION
V_{RRM} /100
OUT LINE DIAGRAM

OUT LINE DIAGRAM 'T'-PUK

