



Ruttonsha International Rectifier Ltd.

STANDARD RECOVERY DIODES

High Power Diode Hockey Puk Version R2000 B...C Series

Types : R2000B 02C TO R2000B 20C

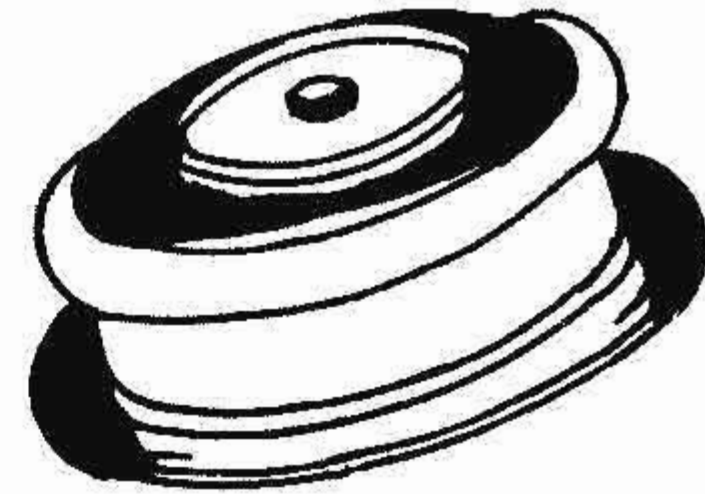
FEATURES

- € *Wide current range*
- € *High surge current capabilities*
- € *Case style DO- 200AB (B-PUK)*

TYPICAL APPLICATIONS

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

R2000B (B - PUK)



MAJOR RATINGS & CHARACTERISTICS

Parameters	R2000B	Units
$I_{F(AV)}$	2000	A
$@ T_{hs}$	55	$^{\circ}C$
$I_{F(RMS)}$	3140	A
$@ T_{hs}$	55	$^{\circ}C$
I_{FSM}	16600	A
$@ 50 \text{ Hz}$		
I^2t	1377	KA^2s
$@ 50 \text{ Hz}$		
V_{RRM} range	200 to 2000	V
T_J	-40 to 180	$^{\circ}C$

STANDARD RECOVERY DIODES

R2000B

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
R2000B	02	200	300	50
	08	800	900	
	12	1200	1300	
	16	1600	1700	
	20	2000	2100	

FORWARD CONDUCTION

	Parameter	R2000B	Units	Conditions
$I_{F(AV)}$	Max. average Forward current @ heat sink temperature	2000	A	180° conduction, half sine wave double side cooled
		55	°C	
$I_{F(RMS)}$	Max. RMS Forward current	3140		@55°C heat sink temperature (double side cooled)
I_{FSM}	Max. peak one cycle Forward non-repetitive surge current	16600	A	t = 10ms Sinusoidal half wave, Initial $T_J = T_J$ max.
I^2t	Maximum I^2t for fusing	1377	kA ² s	t = 10ms
$V_{F(TO)}$	Low level value of threshold voltage	0.83	V	$T_J = T_J$ max.
r_{ff}	Low level value of Forward slope resistance	0.24	mΩ	$T_J = T_J$ max.
V_{FM}	Max. Forward voltage drop	1.64	V	$I_{pk} = 3000A$, $T_J = T_J$ max., $t_p = 10ms$ sine pulse

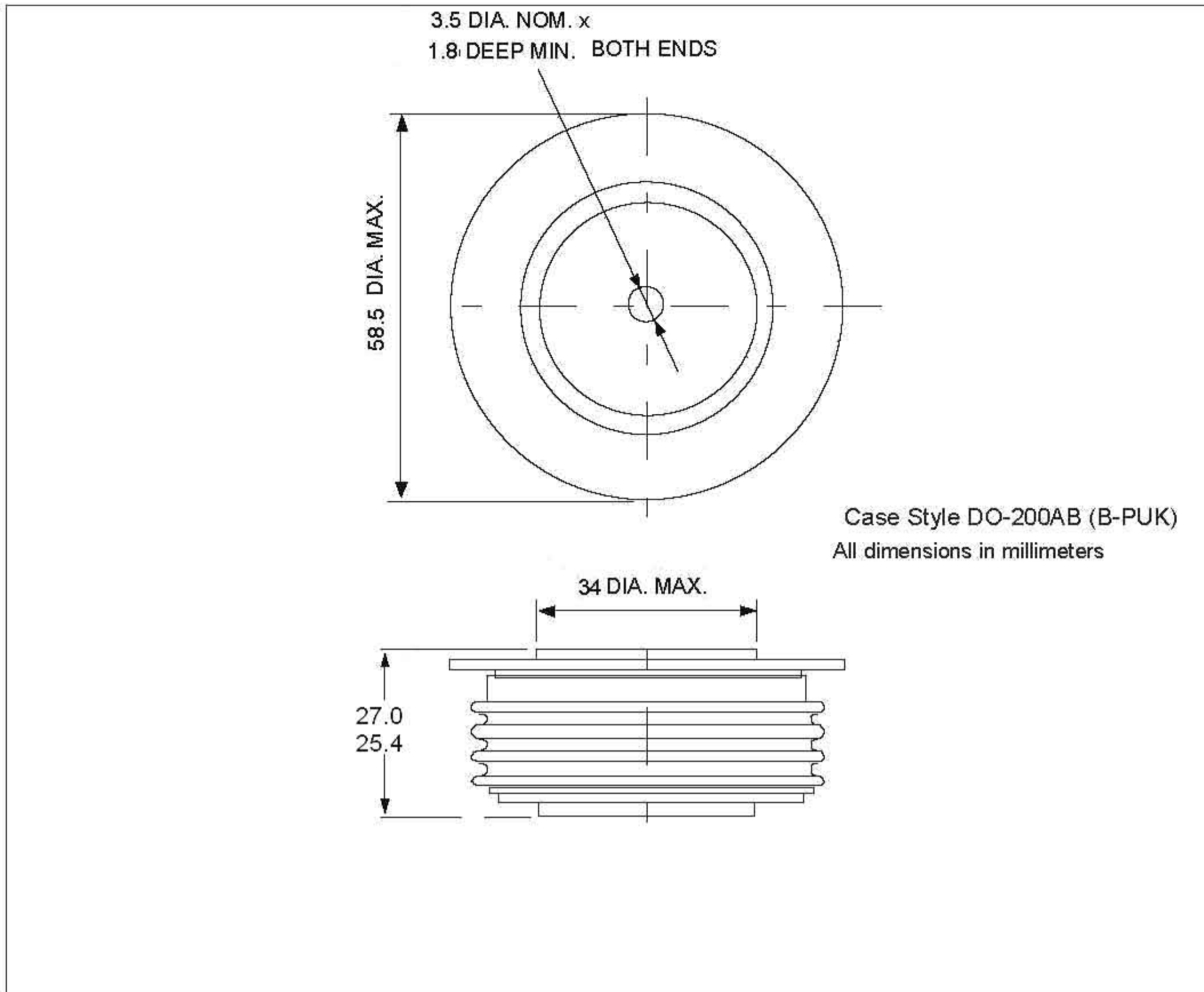
THERMAL AND MECHANICAL SPECIFICATION

	Parameter	R2000B	Units	Conditions
T_J	Max. operating temperature range	-40 TO 180	°C	
T_{stg}	Max. storage temperature range	-55 TO 200		
R_{thJ-hs}	Max. thermal resistance, junction to heat sink	0.031	K/W	DC operation double side cooled
F	Mounting force, ±10%	14700 (1500)	N (kg)	
w t	Approximate weight	255	g	
	Case style	DO-200AB(B-PUK)		See outline

STANDARD RECOVERY DIODES

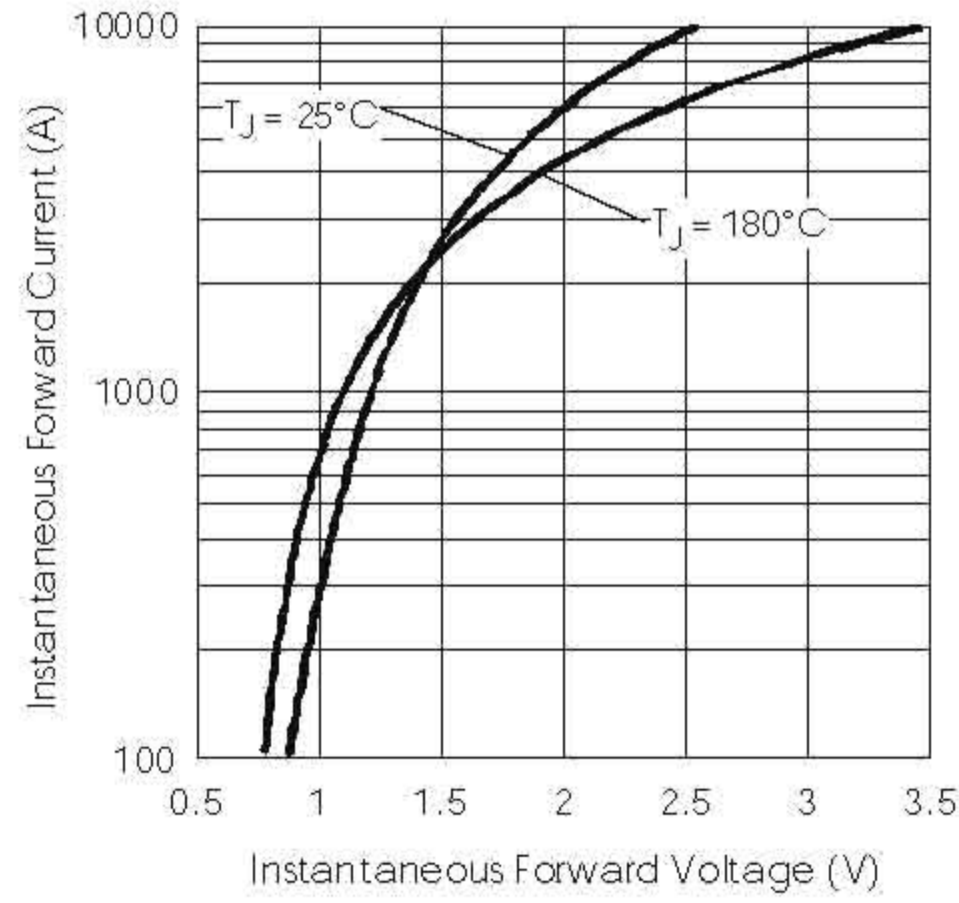
R2000B

Outline Table

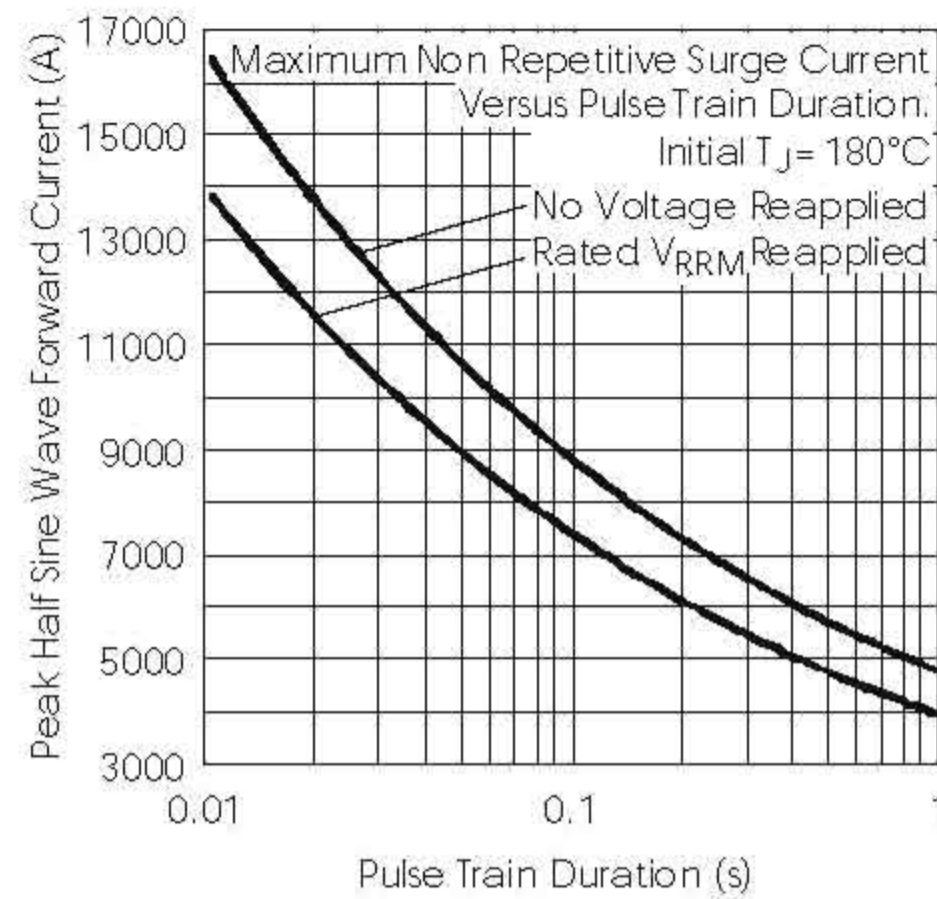


STANDARD RECOVERY DIODES

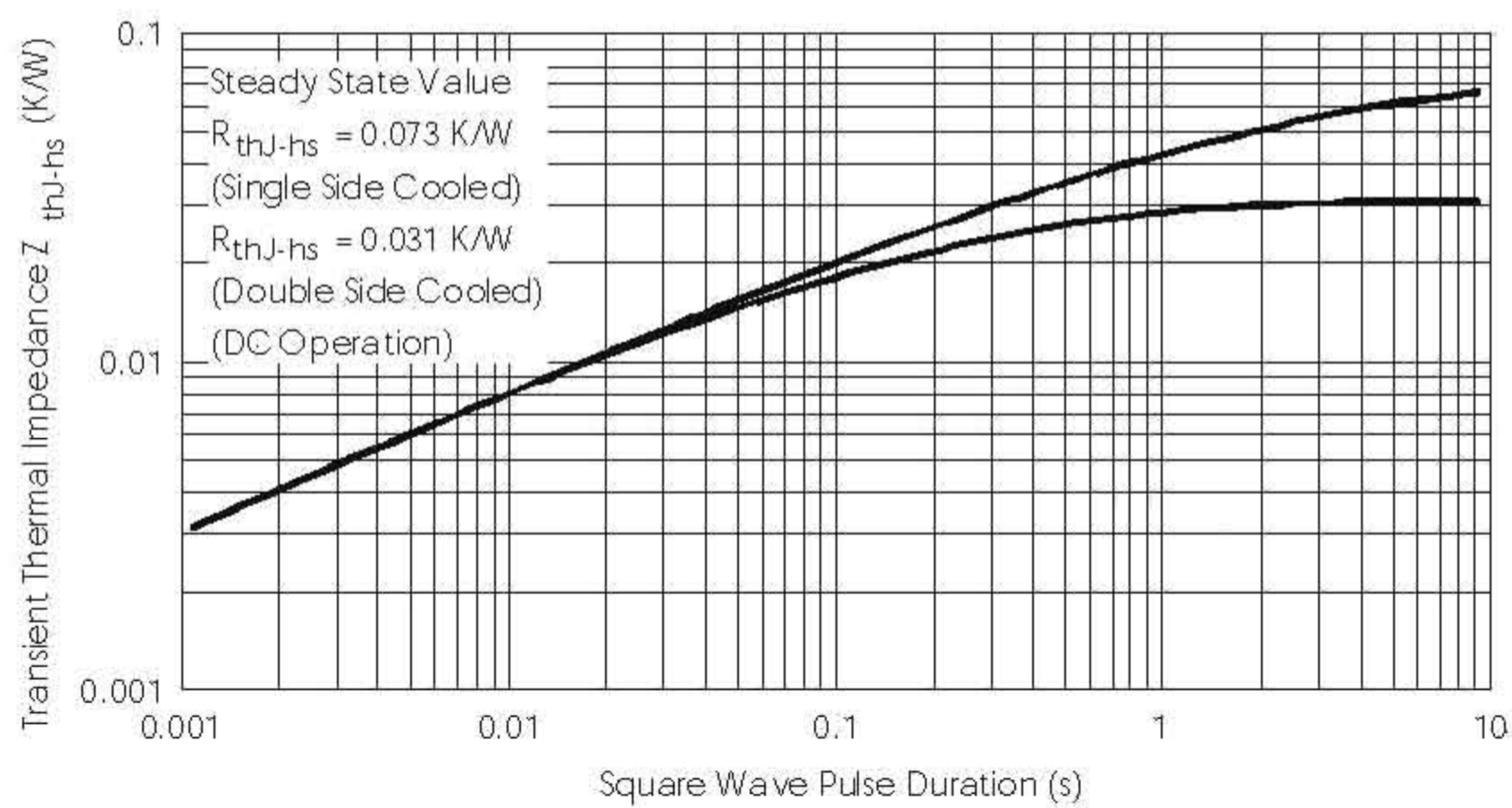
R2000B...C



Forward Voltage Drop Characteristics



Maximum Non-Repetitive Surge Current



Thermal Impedance Z_{thJC} Characteristics