

# Rectifier Diode

## W1524LC240 to W1524LC300

The data sheet on the subsequent pages of this document is a scanned copy of existing data for this product.

(Rating Report 87NR8 Issue 1)

This data reflects the old part number for this product which is: SW24-30CXC635. This part number must **NOT** be used for ordering purposes – please use the ordering particulars detailed below.

The limitations of this data are as follows:  
No reverse recovery information available

Please use the following link to view an up to date outline drawing for this device  
[Outline W4](#)

Where any information on the product matrix page differs from that in the following data, the product matrix must be considered correct

An electronic data sheet for this product is presently in preparation.

For further information on this product, please contact your local ASM or distributor.

Alternatively, please contact Westcode as detailed below.

<b>Ordering Particulars</b>			
W1524	LC	◆◆	0
Fixed Type Code	Fixed Outline Code	Voltage code $V_{DRM}/100$ 24-30	Fixed Code
Typical Order Code: W1524LC260, 27mm clamp height, 2600V $V_{RRM}$			

**IXYS Semiconductor GmbH**  
Edisonstraße 15  
D-68623 Lampertheim  
Tel: +49 6206 503-0  
Fax: +49 6206 503-627  
E-mail: [marcom@ixys.de](mailto:marcom@ixys.de)

**IXYS Corporation**  
3540 Bassett Street  
Santa Clara CA 95054 USA  
Tel: +1 (408) 982 0700  
Fax: +1 (408) 496 0670  
E-mail: [sales@ixys.net](mailto:sales@ixys.net)

**WESTCODE**  
An IXYS Company

[www.westcode.com](http://www.westcode.com)

[www.ixys.com](http://www.ixys.com)

**Westcode Semiconductors Ltd**  
Langley Park Way, Langley Park,  
Chippenham, Wiltshire, SN15 1GE.  
Tel: +44 (0)1249 444524  
Fax: +44 (0)1249 659448  
E-mail: [WSL.sales@westcode.com](mailto:WSL.sales@westcode.com)

**Westcode Semiconductors Inc**  
3270 Cherry Avenue  
Long Beach CA 90807 USA  
Tel: +1 (562) 595 6971  
Fax: +1 (562) 595 8182  
E-mail: [WSI.sales@westcode.com](mailto:WSI.sales@westcode.com)

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In the interest of product improvement, Westcode reserves the right to change specifications at any time without prior notice.

Devices with a suffix code (2-letter, 3-letter or letter/digit/letter combination) added to their generic code are not necessarily subject to the conditions and limits contained in this report.

QUALITY EVALUATION LABORATORY

Rating Report: 87NR8

Date: 11th June, 1987

Pages: 10

Diode Type SW24-30XC635

Written by: *M.W. Jumbop*

Checked: *M.W.*

Approved: *Bleu H.*

This diode consists of an all-diffused 38 mm diameter silicon slice mounted in a cold weld capsule housing. This report supersedes Rating Report No. 78NR13.

Ratings

Voltage Grades

$V_{RSM}$

: 24-30

$V_{RRM}$

: 2500-3100V

: 2400-3000V

$I_{F(AV)}$  : Single Phase; 50 Hz, 180° half sinewave;

Double side cooled  $T_{HS} = 55^{\circ}C, 100^{\circ}C$

: 1525A; 1060A

Single side cooled  $T_{HS} = 100^{\circ}C$

: 661A

$I_F$  (rms) max. )

$I_F$  max. )

Double side cooled  $T_{HS} = 25^{\circ}C$

: 2803A

: 2458A

$I_{FSM}$  :  $t = 10ms$  half sinewave;  $T_J$  (initial) =  $160^{\circ}C$ ;

$V_{RM} = 0.6 V_{RRM}(Max)$

: 12,700A

$I_{FSM}$  ;  $t = 10ms$  half sinewave;  $T_J$  (initial =  $160^{\circ}C$ ;  $V_{RM} \leq 10V$  : 14,600A

$I^2t$  :  $t = 10ms$ ;  $T_J$  (initial) =  $160^{\circ}C$ ;  $V_{RM} = 0.6 V_{RRM}(Max)$  :  $0.81 \times 10^6 A^2 SECS$

$I^2t$  :  $t = 10ms$ ;  $T_J$  (initial) =  $160^{\circ}C$ ;  $V_{RM} \leq 10V$  :  $1.07 \times 10^6 A^2 SECS$

$I^2t$  :  $t = 3ms$ ;  $T_J$  (initial) =  $160^{\circ}C$ ;  $V_{RM} \leq 10V$  :  $0.79 \times 10^6 A^2 SECS$

$T_{HS}$  Operating range

: -40 to  $160^{\circ}C$

$T_{stg}$ ; Non-operating

: -40 to  $185^{\circ}C$

Characteristics

(Maximum values unless stated otherwise)

$V_O : T_J = 160^\circ\text{C}$	:	0.87V
$r_s : T_J = 160^\circ\text{C}$	:	0.323mohms
$V_{FM} : I_{FM} = 3090\text{A } T_{VJ} = 160^\circ\text{C}$	:	1.87V
$R_{th} \text{ (J-HS) Double side cooled}$	:	0.033°C/W
Single side cooled	:	0.065°C/W
$I_{RRM} : T_J = 160^\circ\text{C } V_{RM} = V_{RRM}(\text{Max})$	:	30mA
$Q_{rr} : I_{TM} = \quad \quad \quad dI/dt =$	:	:
$V_{RM} = \quad \quad \quad T_{VJ} =$	:	:
Mounting Force	:	1000-2000 Kg.f
Outline drawing	:	100A243
Jedec Outline No.	:	DO-200AB

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Changes to Rating Report No. 78NR13

p1 :  $I_{F(AV)}$  at  $T_{HS} = 55^{\circ}C$  changed )  
          "          "      =  $100^{\circ}C$  added ) D.S.C.  
          "          "      =  $100^{\circ}C$  changed - S.S.C.

$I_{F(rms)}$  MAX changed

$I^2t_i$  corrected

$T_{HS(MIN)}$  reduced to  $-40^{\circ}C$

p2 : JEDEC outline No. added

p5-9 : Re-drawn with changes on p5 and p6

R.R. No.	87NR8
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Voltage Ratings

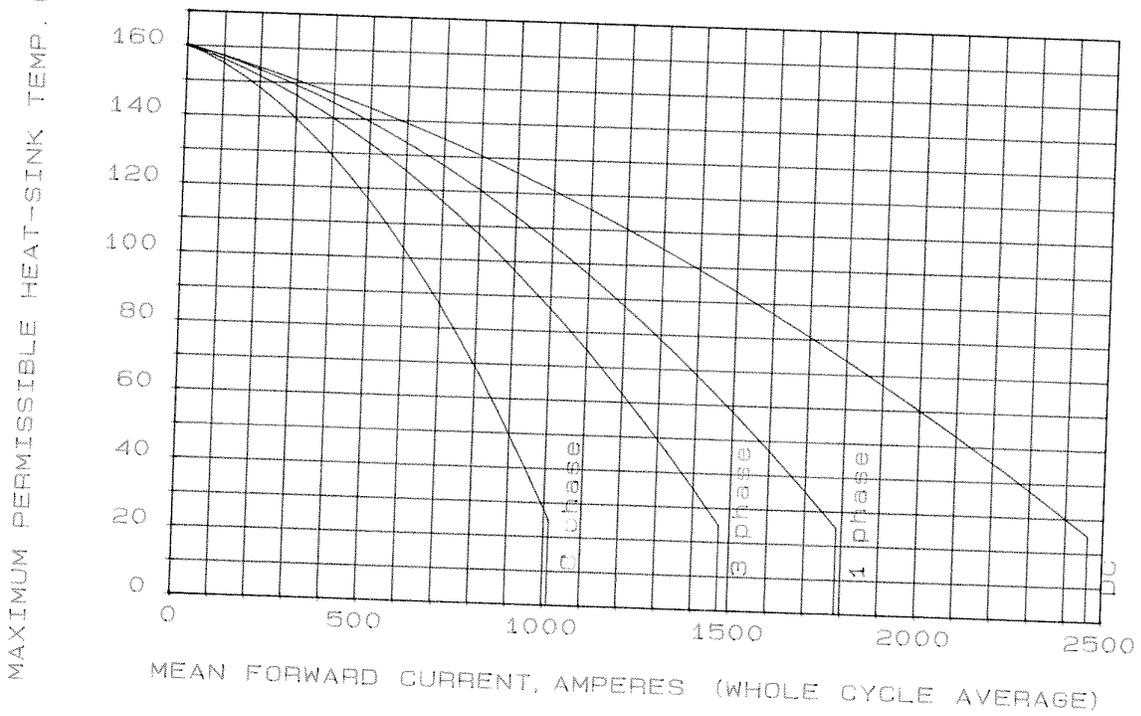
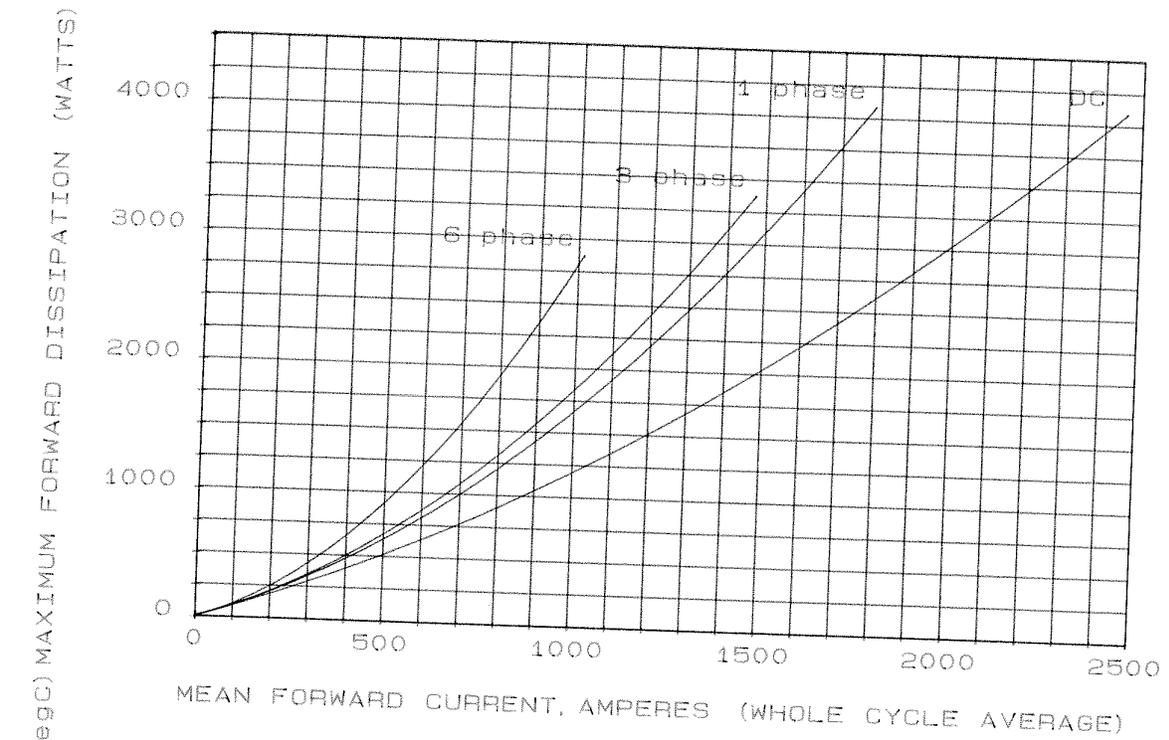
Voltage Class	$V_{RRM}$ V	$V_{RSM}$ V
24	2400	2500
26	2600	2700
28	2800	2900
30	3000	3100

1. Extension of Voltage Grades

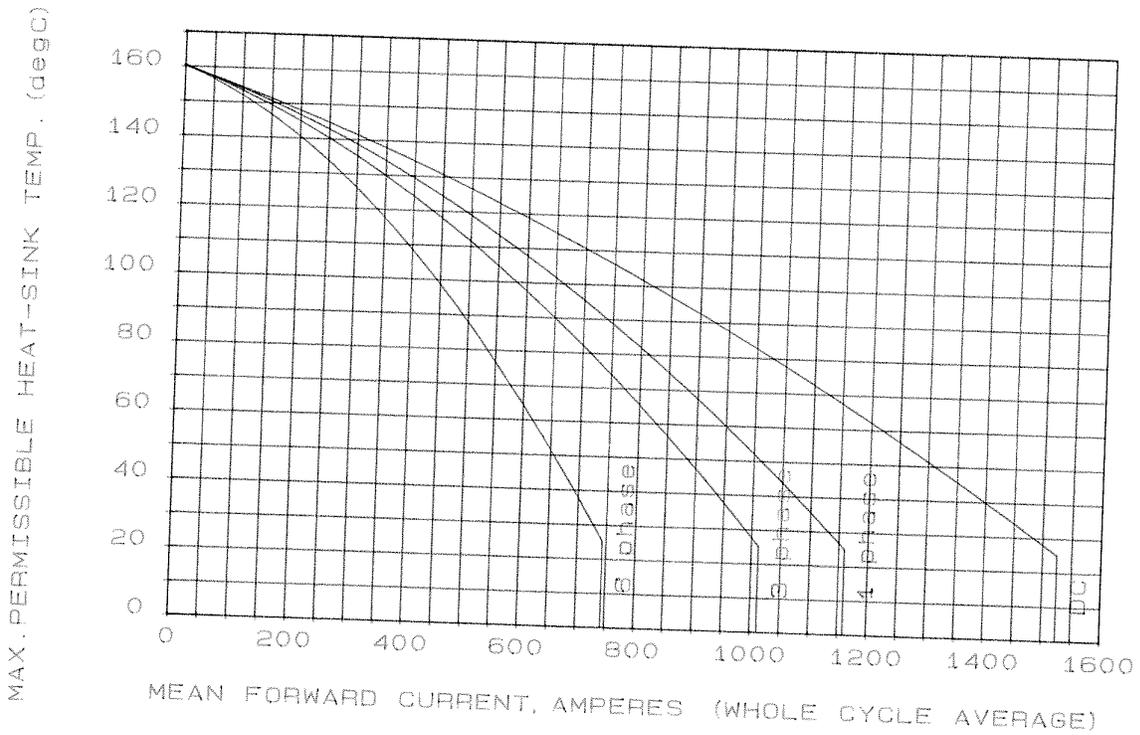
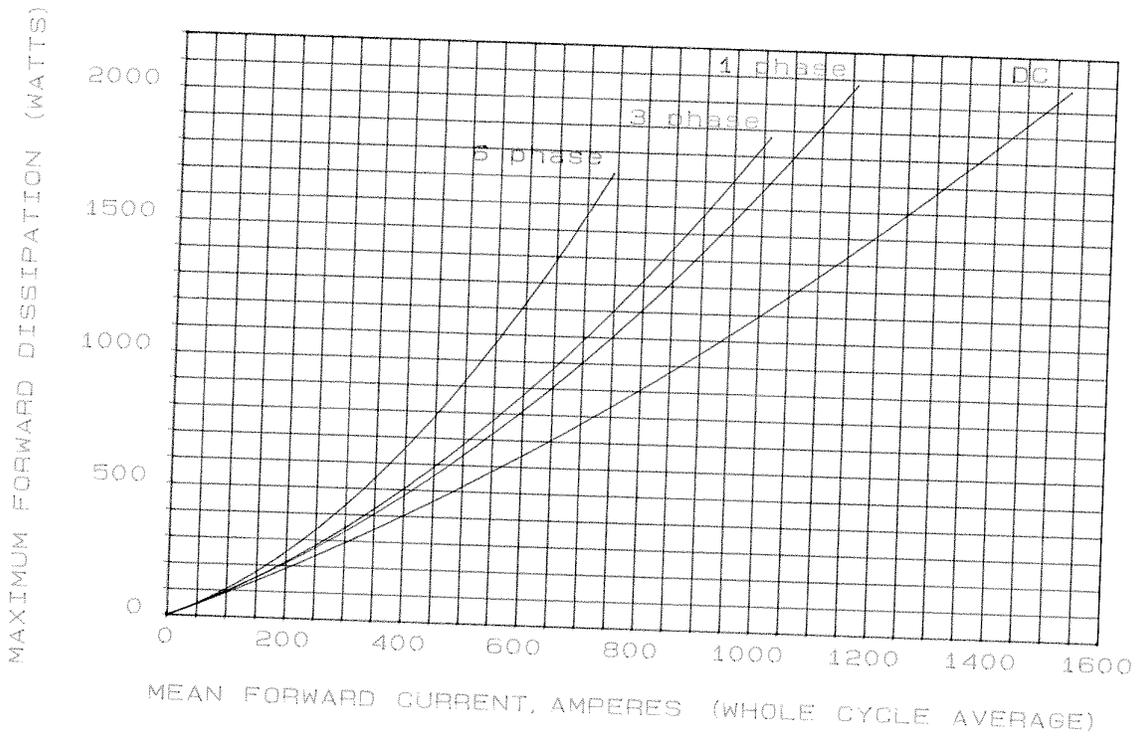
This Report is applicable to higher or lower voltage grades when supply has been agreed by Sales/Production.

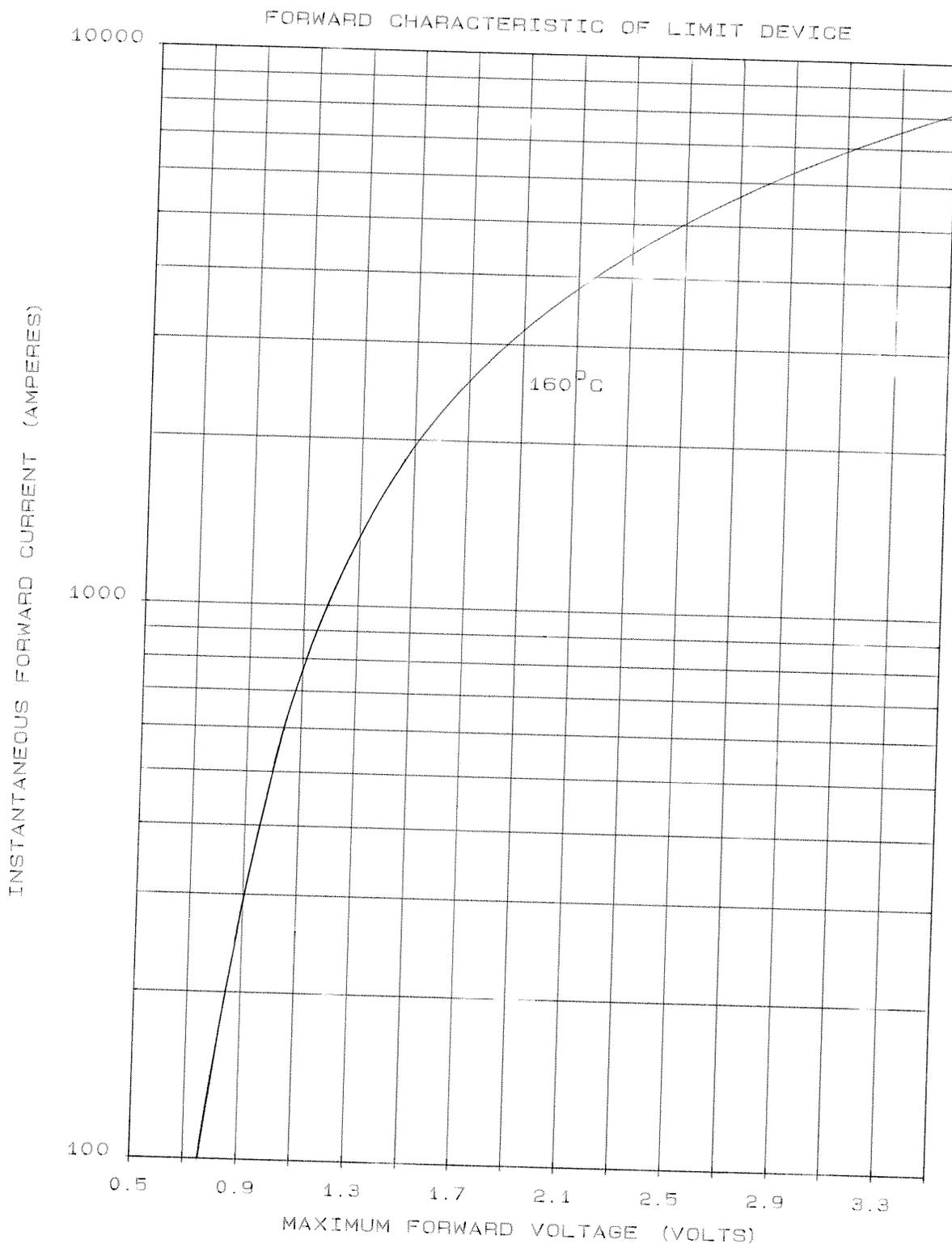
2. A blocking voltage derating factor of 0.13% per deg. Celsius is applicable to this device for  $T_j$  below 25°C.

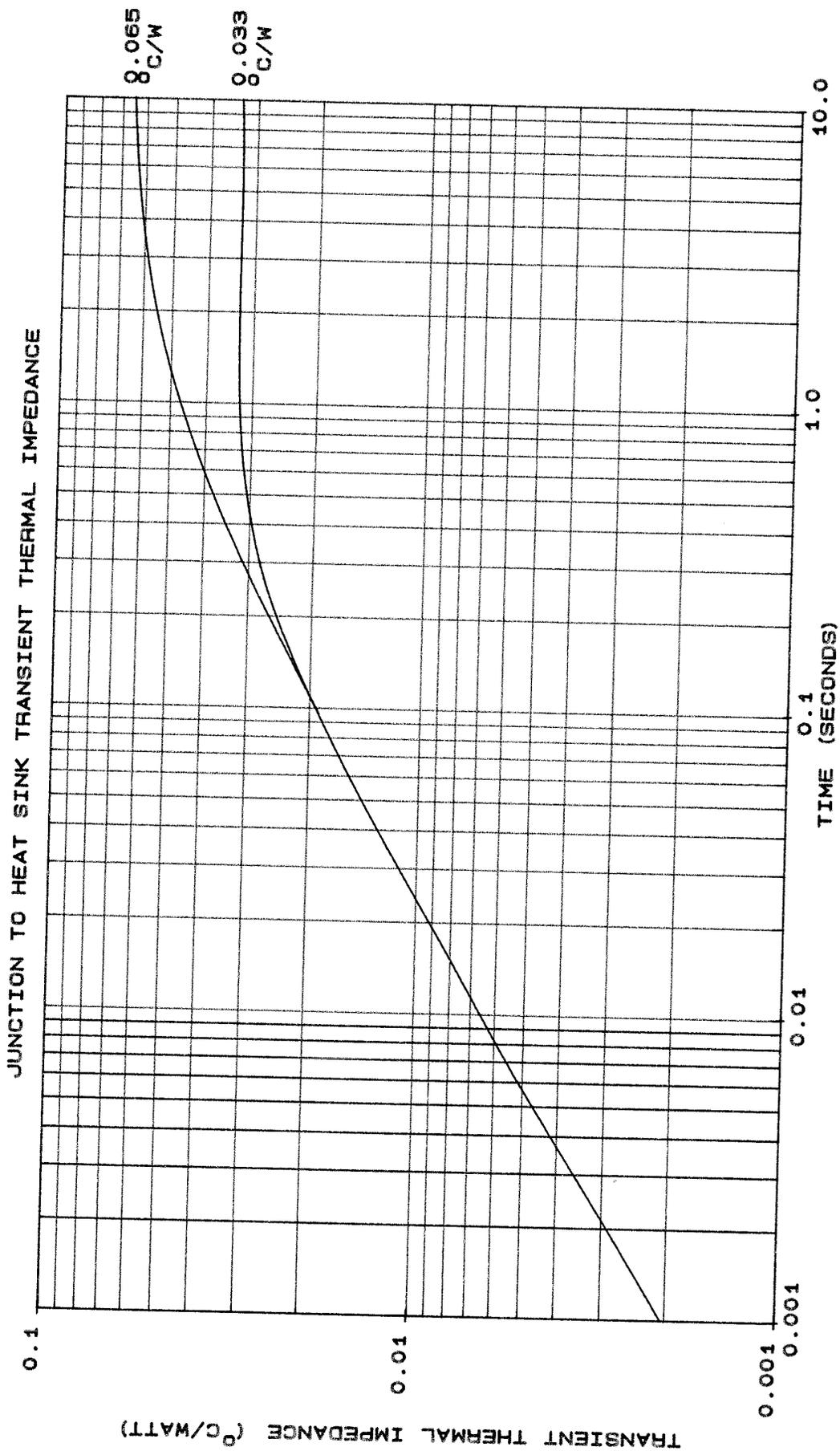
DOUBLE SIDE COOLED



SINGLE SIDE COOLED







MAXIMUM NON REPETITIVE SURGE CURRENT AT INITIAL JUNCTION TEMPERATURE 160°C

