

Rectifier Diode

W1411LC300 to W1411LC360

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

(Rating Report 87NR11 Issue 1)

This data reflects the old part number for this product which is: SW30-36CXC595. 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.

Ordering Particulars			
W1411	LC	◆◆	0
Fixed Type Code	Fixed Outline Code	Voltage code $V_{\text{DRM}}/100$ 30-36	Fixed Code
Typical Order Code: W1411LC340, 27mm clamp height, 3400V 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

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

WESTCODE
An  IXYS Company

www.westcode.com

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

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

The information contained herein is confidential and is protected by Copyright. The information may not be used or disclosed except with the written permission of and in the manner permitted by the proprietors Westcode Semiconductors Ltd.

© Westcode Semiconductors Ltd.

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: 87NR11

Date: 11th June, 1987

Pages: 10

Diode Type SW30-36CXC595

Written by: *mhw. Dunlop*

Checked: *mhw*

Approved: *Blewett*

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. 78NR14.

Ratings

Voltage Grades	: 30-36
V_{RSM}	: 3100-3700V
V_{RRM}	: 3000-3600V
$I_F(AV)$: Single Phase; 50 Hz, 180° half sinewave;	
Double side cooled $T_{HS} = 55^\circ C, 100^\circ C$	: 1415A; 1000A
Single side cooled $T_{HS} = 100^\circ C$	: 620A
I_F (rms) max.)	: 2590A
I_F max.) Double side cooled $T_{HS} = 25^\circ C$	: 2288A
I_{FSM} : t = 10ms half sinewave; T_J (initial) = 160°C;	
$V_{RM} = 0.6 V_{RRM}(Max)$	: 10,600A
I_{FSM} ; t = 10ms half sinewave; T_J (initial = 160°C; $V_{RM} \leq 10V$	: 12,200A
$I^2 t$: t = 10ms; T_J (initial) = 160 °C; $V_{RM} = 0.6 V_{RRM}(Max)$	: $0.562 \times 10^6 A^2 SECS$
$I^2 t$: t = 10ms; T_J (initial) = 160 °C; $V_{RM} \leq 10V$	: $0.744 \times 10^6 A^2 SECS$
$I^2 t$: t = 3ms; T_J (initial) = 160 °C; $V_{RM} \leq 10V$	: $0.55 \times 10^6 A^2 SECS$
T_{HS} Operating range	: -40 to +160°C
T_{stg} ; Non-operating	: -40 to 185 °C

Characteristics

(Maximum values unless stated otherwise)

$V_O : T_J = 160^{\circ}\text{C}$	:	0.9V
$r_s : T_J = 160^{\circ}\text{C}$	:	0.388mohms
$V_{FM} : I_{FM} = 2870\text{A} \quad T_{VJ} = 160^{\circ}\text{C}$	:	2.0V
$R_{th} \text{ (J-HS) Double side cooled}$	:	0.033°C/W
Single side cooled	:	0.065°C/W
$I_{RRM} : T_J = 160^{\circ}\text{C} \quad V_{RM} = V_{RRM}(\text{Max})$	:	30mA
$Q_{rr} : I_{TM} = \quad dI/dt =$	:	
$V_{RM} = \quad T_{VJ} =$	:	
Mounting Force	:	1000-2000Kg.f
Outline drawing	:	100A243
Jedec Outline No.	:	D0200AB

CONTENTS

	<u>Page</u>
Ratings	1
Characteristics	2
Contents	3
Voltage Ratings	4
Dissipation and Heatsink Temperature vs Mean Current	5 & 6
Limit Forward Voltage Characteristic	7
Transient Thermal Impedance Characteristic	8
Surge Current and I^2t vs Duration of Surge	9
Outline Drawing	10

Changes to Rating Report No. 78NR14

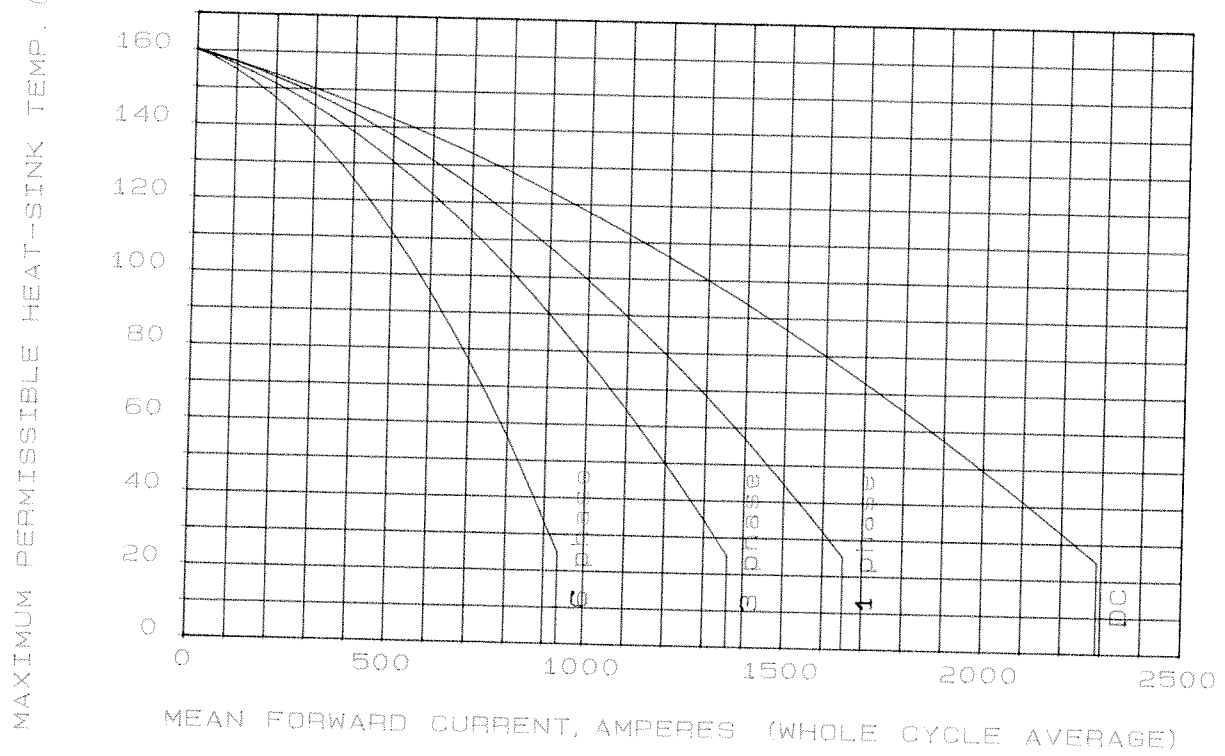
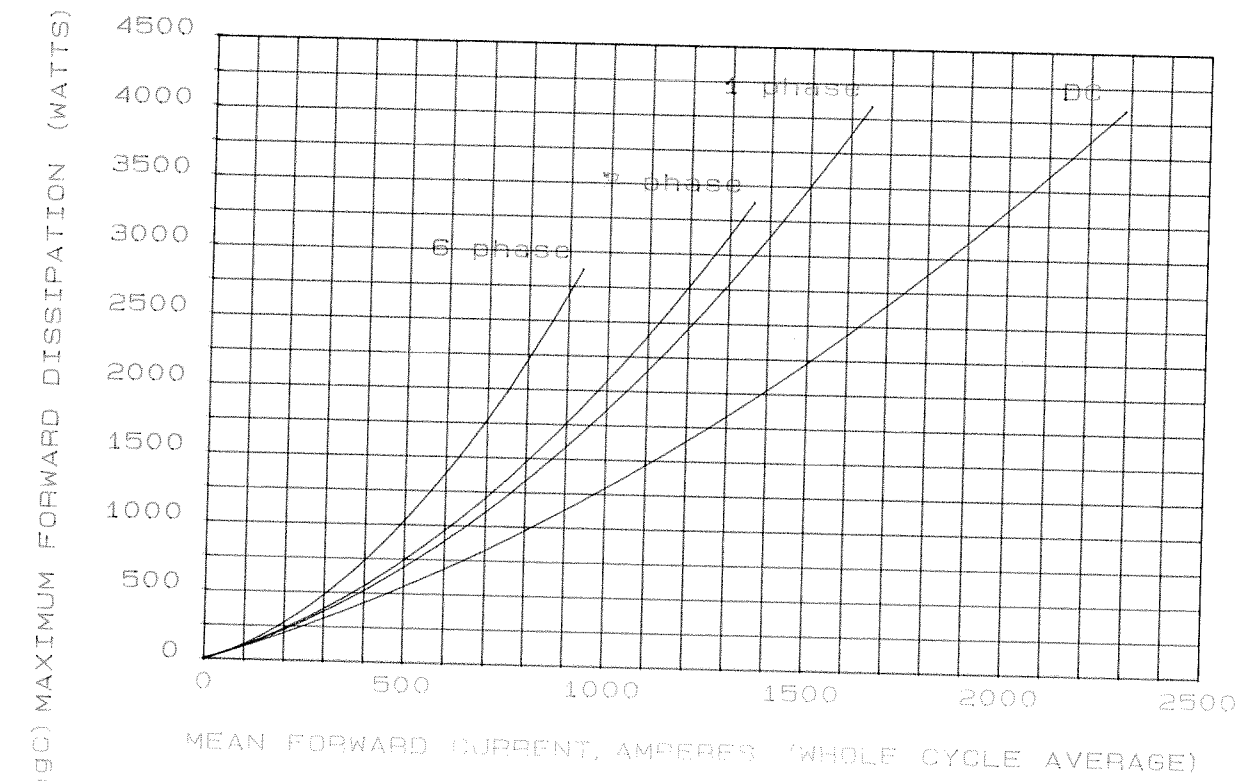
- p1 : Min. grade changed
- $I_{F(AV)}$, I_{rms} changed
- I^2t_2 , I^2t ($t = 3$ ms) corrected
- $T_{HS(MIN)}$ reduced to -40°C
- p2 : JEDEC outline No. added
- p4 : Min. grade changed
- pp5-9 : Re-drawn with changes on p5 and p6

Voltage Ratings

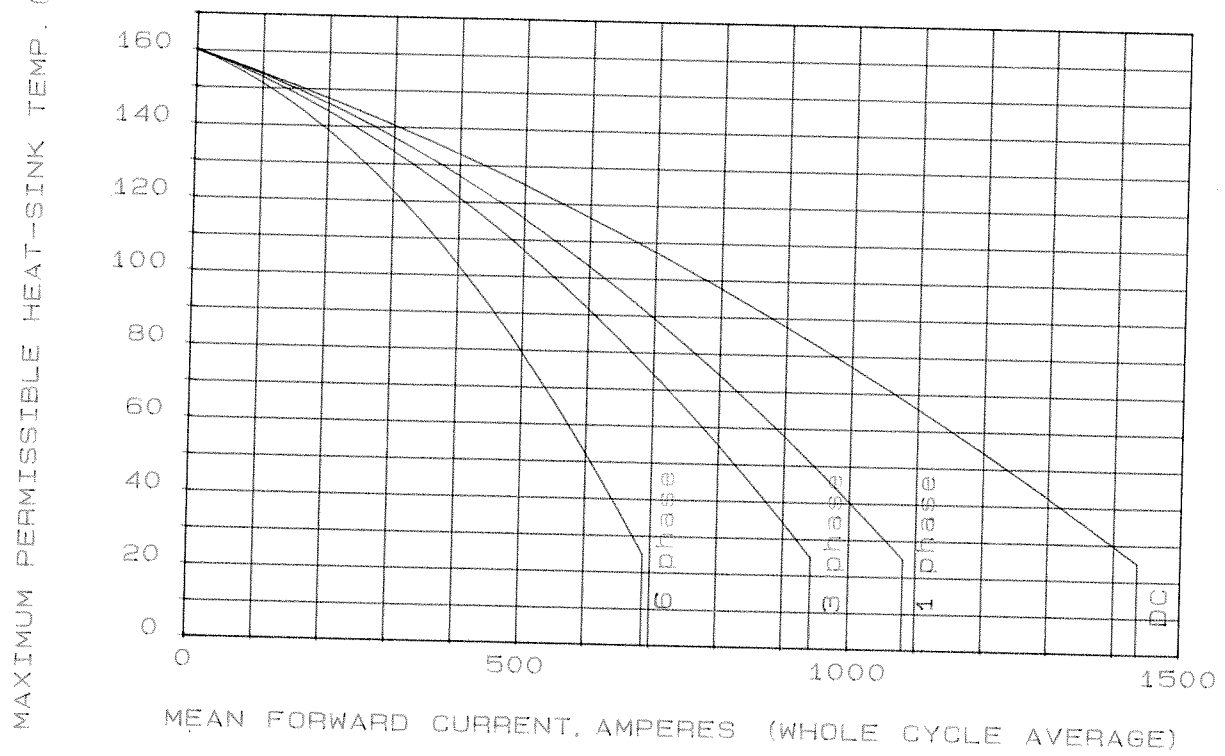
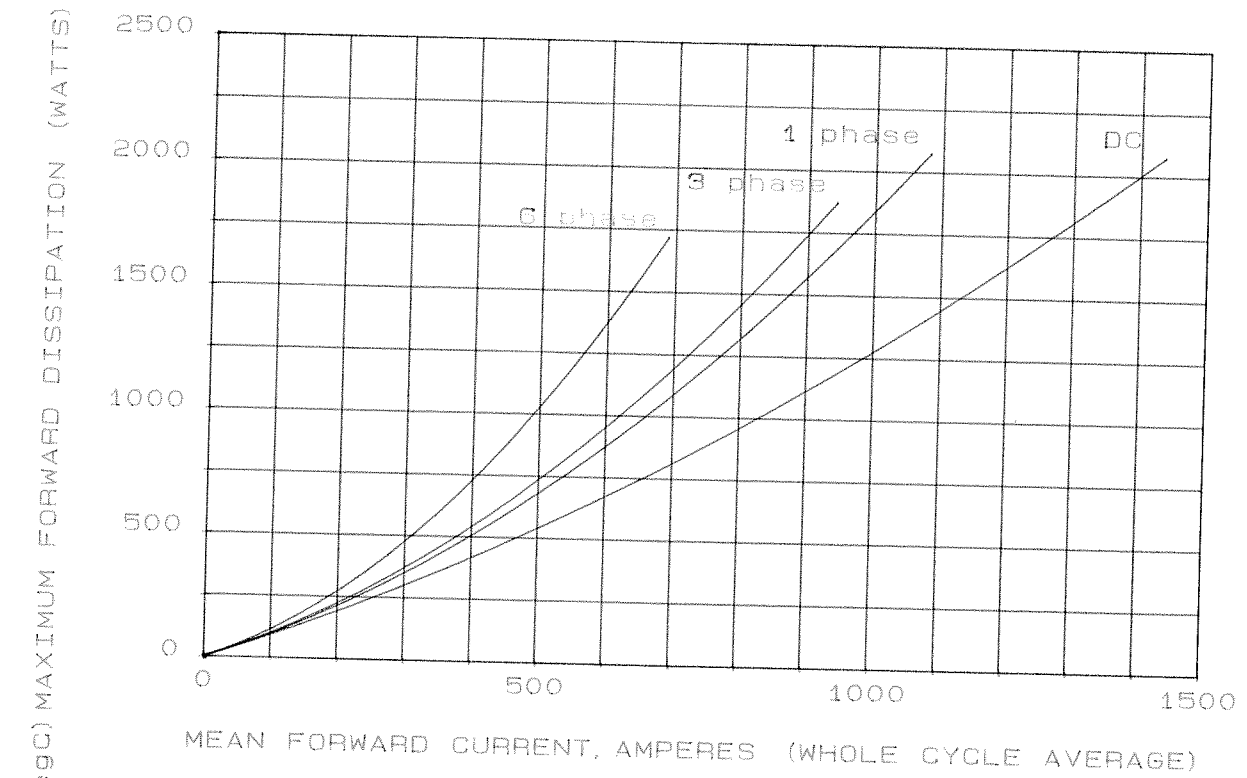
Voltage Class SW	V_{RRM}	V_{RSM} V
30	3000	3100
32	3200	3300
34	3400	3500
36	3600	3700

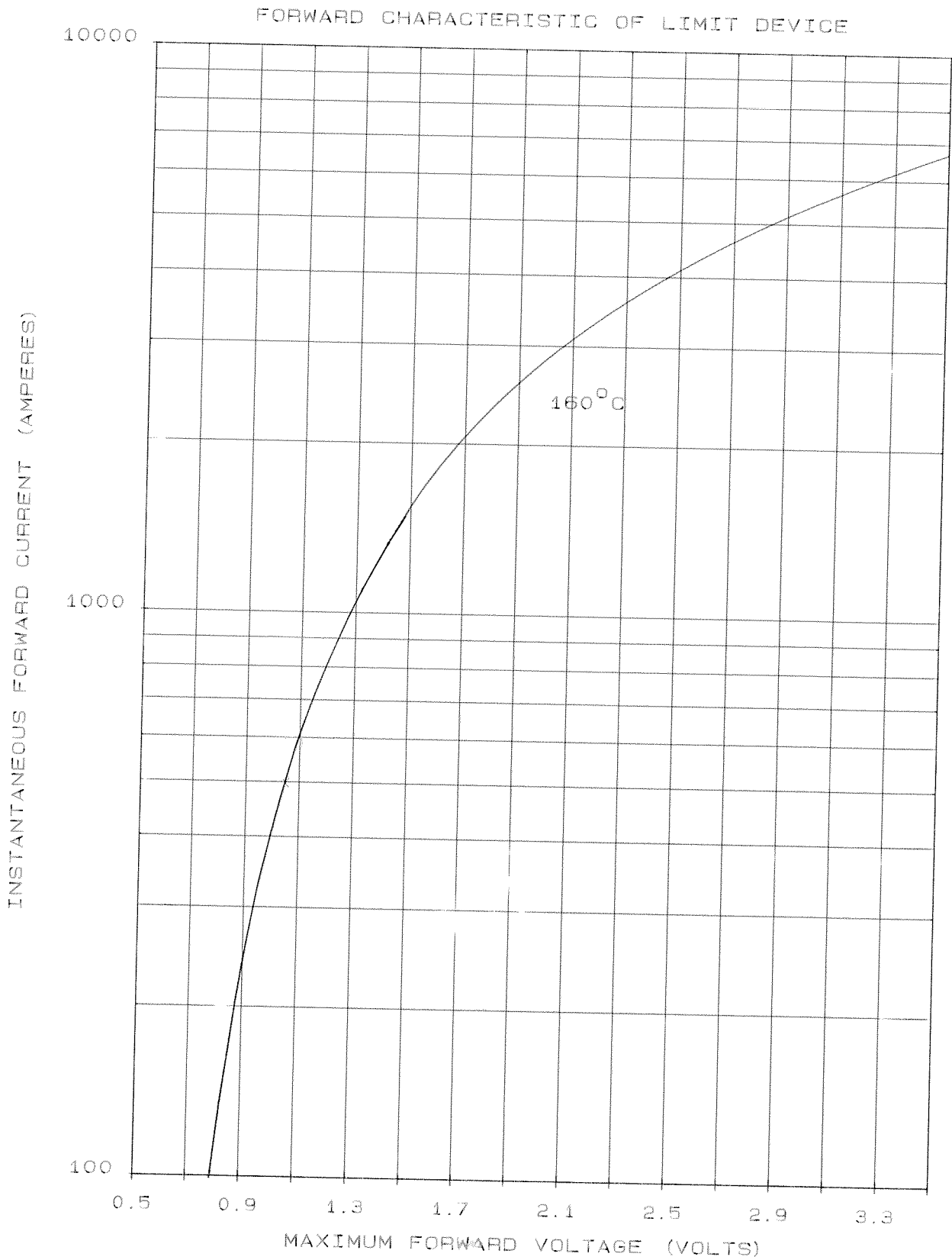
This report is applicable to higher or lower voltage grades when supply has been agreed by Sales/Production.

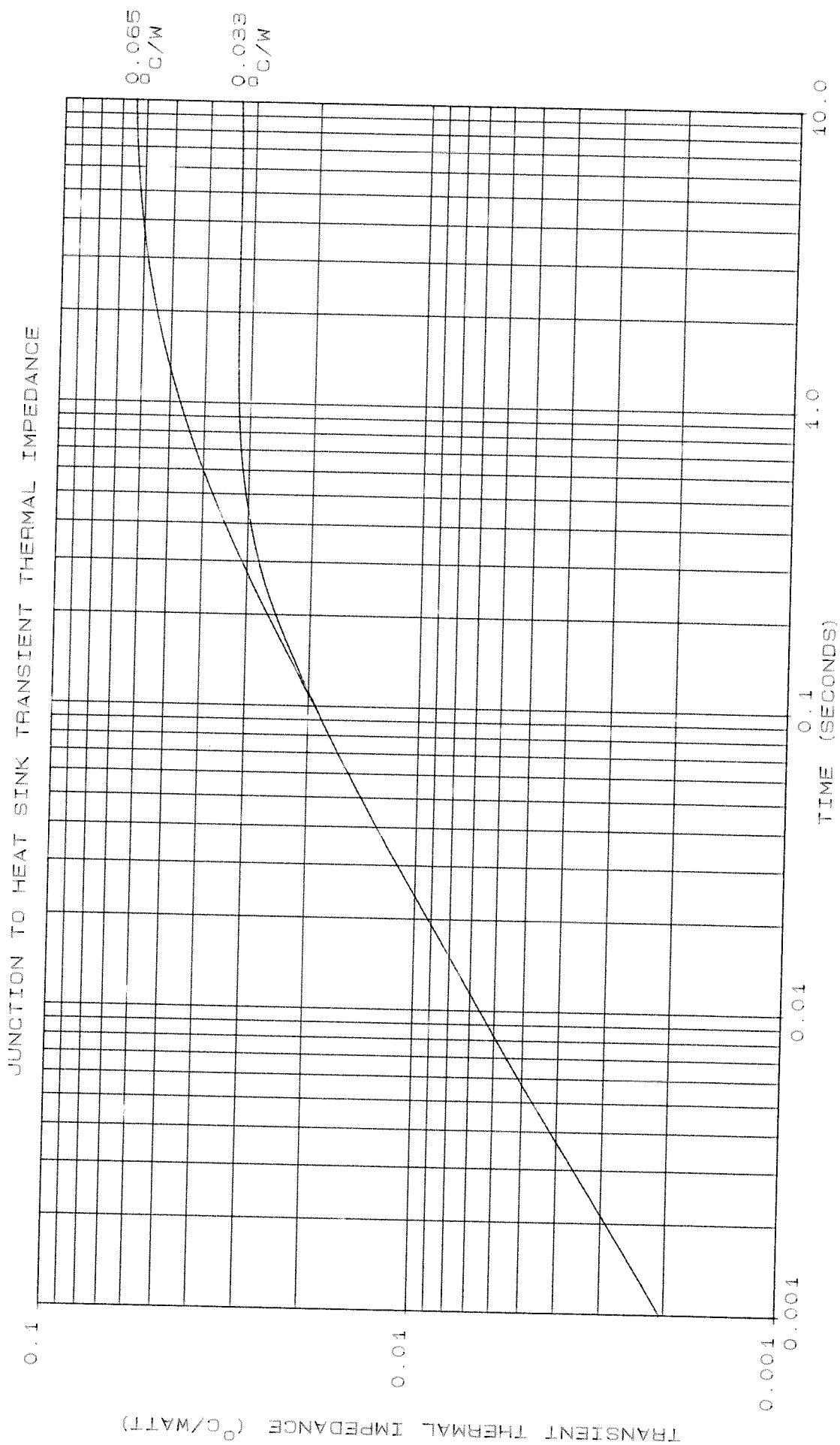
DOUBLE SIDE COOLED



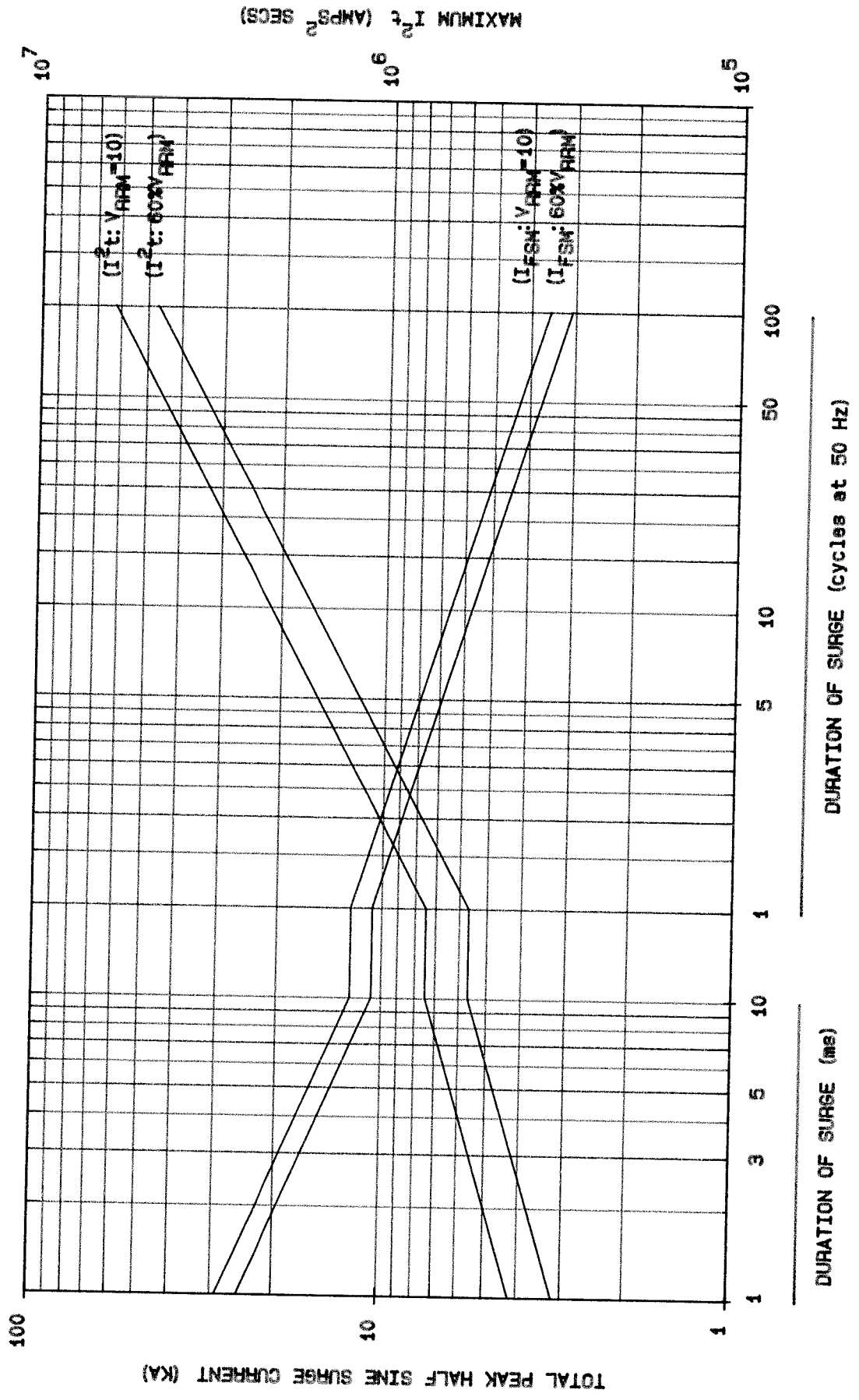
SINGLE SIDE COOLED







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



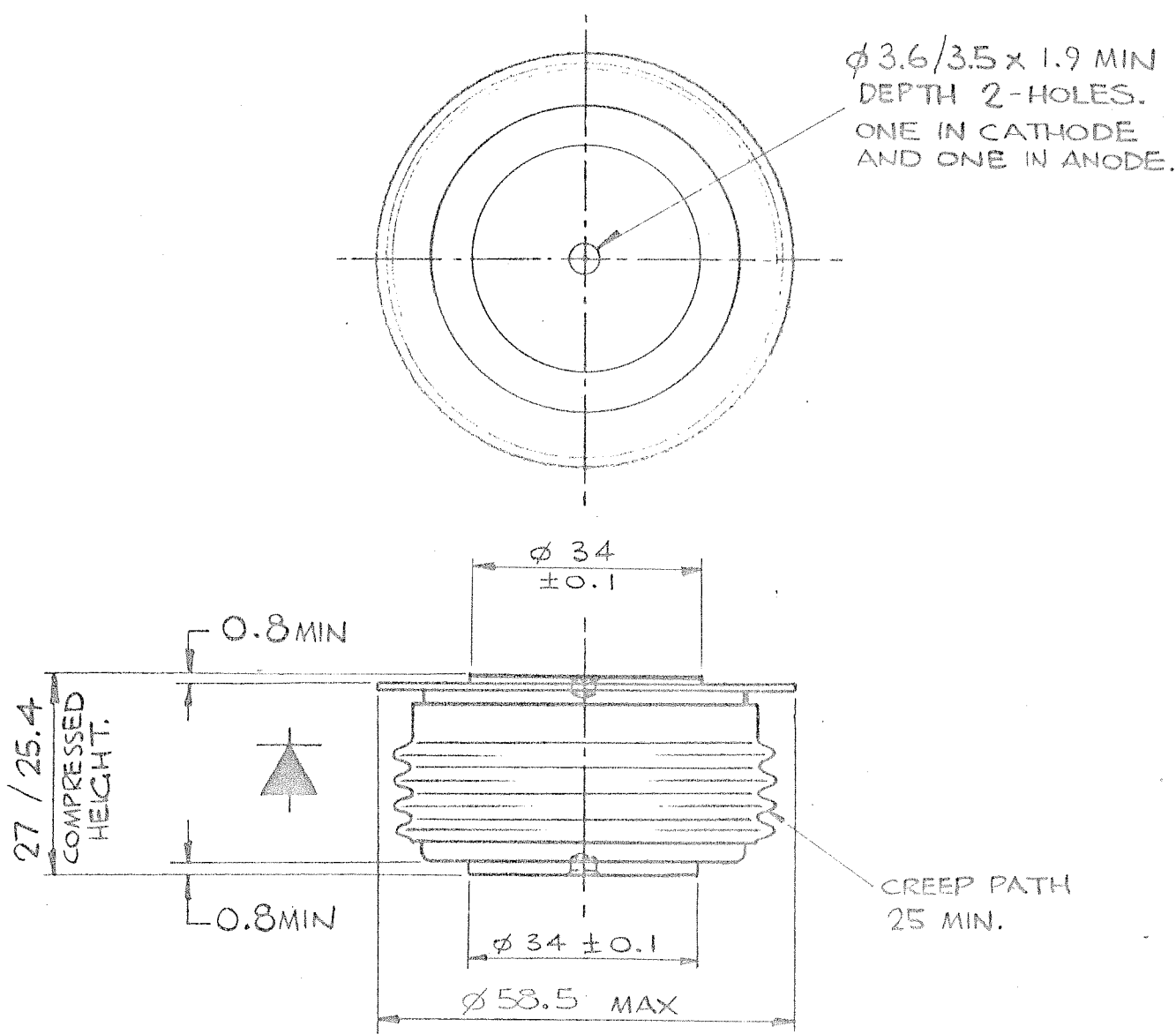
MAXIMUM I^2t (AMPS² SECS)

INTERNATIONAL OUTLINE No. DO - 200 AB
WEIGHT. 340 GRAMS.
FINISH. ET TO BS1872 - 10 -
DEVICE MARKING INCLUDES MONOGRAM, TYPE No., SPEC.
No. AND POLARITY SYMBOL.
DEVICE MOUNTING: CLAMPING FORCE :
1000 - 2000 kgf.

	TYPE NUMBER
CXC 935	CXC 220
CXC 805	CXC 224
CXC 935	CXC 474
CXC 595	CXC 524
CXC 515	CXC 724
CXC 374	

CLAMPING FORCE TO BE APPLIED ON $\frac{1}{2}$ OF LOCATION HOLES & BE EVENLY DISTRIBUTED OVER AREA OF CONTACT. FLATNESS TOL ON SURFACES TO WHICH DEVICE IS CLAMPED TO BE 0.04 WIDE.

G.A. DRG. No. 159B100H204



THE INFORMATION CONTAINED IN THIS DRAWING IS SUPPLIED IN CONFIDENCE AND IS PROTECTED BY COPYRIGHT. THE INFORMATION MAY NOT BE DISCLOSED EXCEPT WITH THE WRITTEN PERMISSION OF AND IN MANNER PERMITTED BY, THE PROPRIETORS, WESTINGHOUSE BRAKE AND SIGNAL CO. LTD.

WESTINGHOUSE BRAKE AND SIGNAL CO. LTD.
CHIPPENHAM, WILTSHIRE, SN15 1JD, ENGLAND.



WESTCODE®
SEMICONDUCTORS

THIRD ANGLE PROJECTION



DIMNS. IN MILLIMETRES

DRG. No.

100A243

ISS	REVIEWS
1	7-9-77 P188
2	P304 15.5-78 Ø 34 WAS Ø38. 1.9 MIN WAS 3 MIN. 0.8 MIN WAS 0.5 & 1.5 MIN. <i>WAS</i>
3	12-9-78 Ø58.5 WAS \$60. CLAMP FORCE WAS 200-1800 kgf. <i>WAS</i>
4	12-10-78 TYPE N° ADDED <i>WAS</i>