

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.

Ordering Particulars			
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}			

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

QUALITY EVALUATION LABORATORY

Rating Report: 87NR8

Date: 11th June, 1987

Pages: 10

Diode Type SW24-30CX0635

Written by:

mhw. Jumbop

Checked:

mhw.

Approved:

Blew 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

: 24-30

V_{RSM}

: 2500-3100V

V_{RRM}

: 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.)

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

: 2803A

I_F max.)

: 2458A

I_{FSM} : t = 10ms half sinewave; T_J (initial) = 160°C;

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

: 12,700A

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

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

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

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

T_{HS} Operating range

: -40 to 160°C

T_{stg} ; Non-operating

: -40 to 185°C

Characteristics

(Maximum values unless stated otherwise)

$V_O : T_J = 160^\circ\text{C}$:	0.87V
$r_s : T_J = 160^\circ\text{C}$:	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
$Q_{rr} : I_{TM} = dI/dt =$:	
$V_{RM} = T_{VJ} =$:	
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 , 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

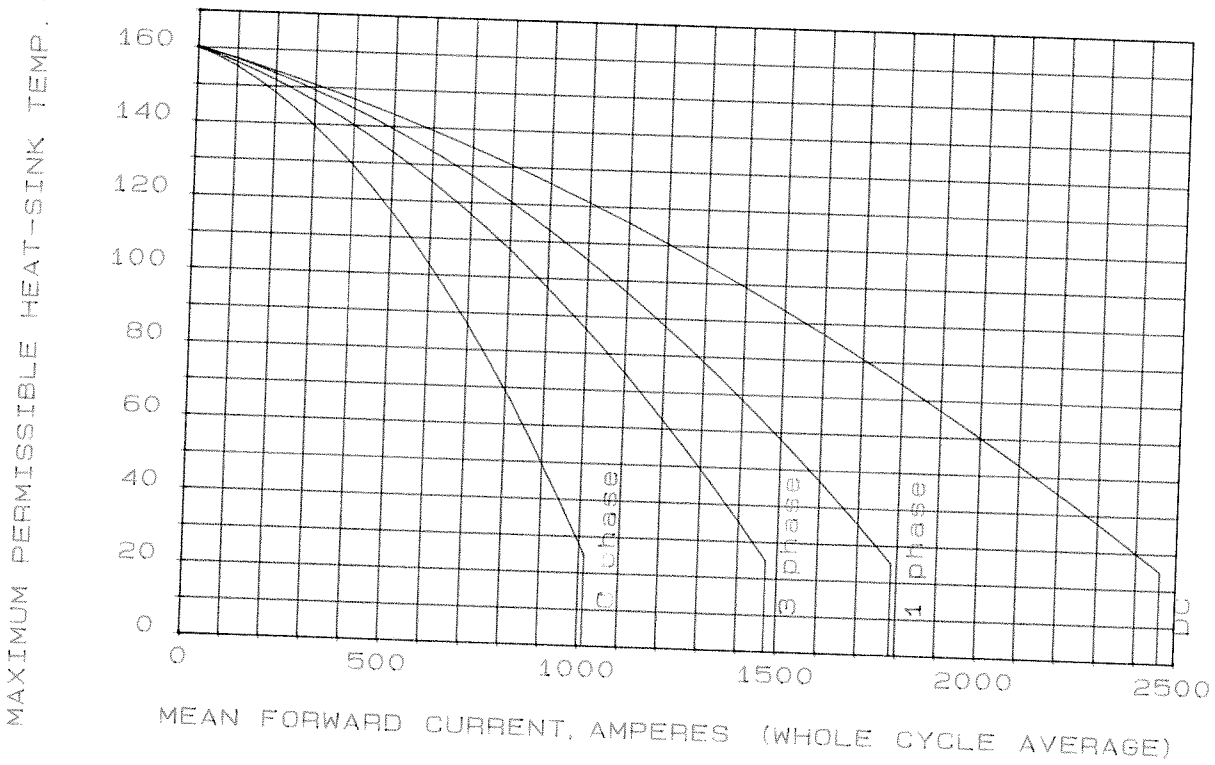
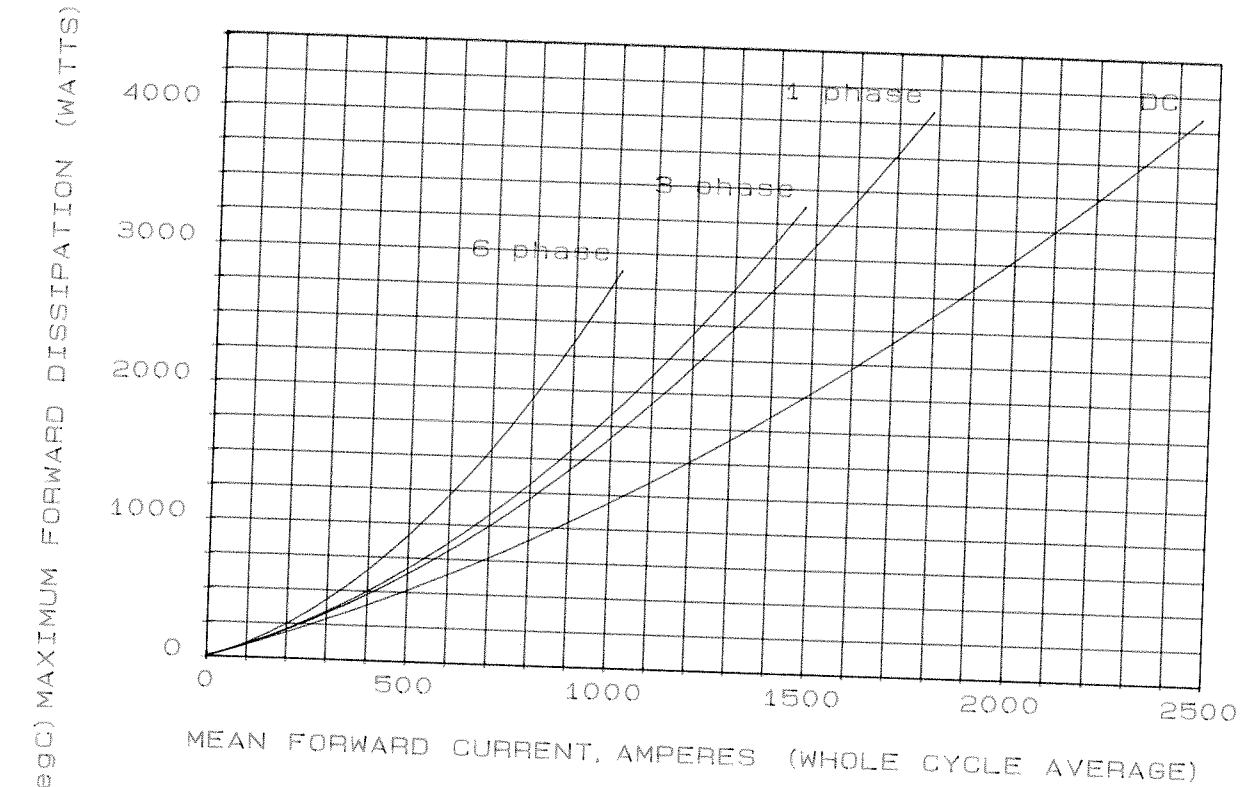
Voltage Class	V_{RRM} V	V_{RSM} V
24	2400	2500
26	2600	2700
28	2800	2900
30	3000	3100

1. Extension of Voltage Grades

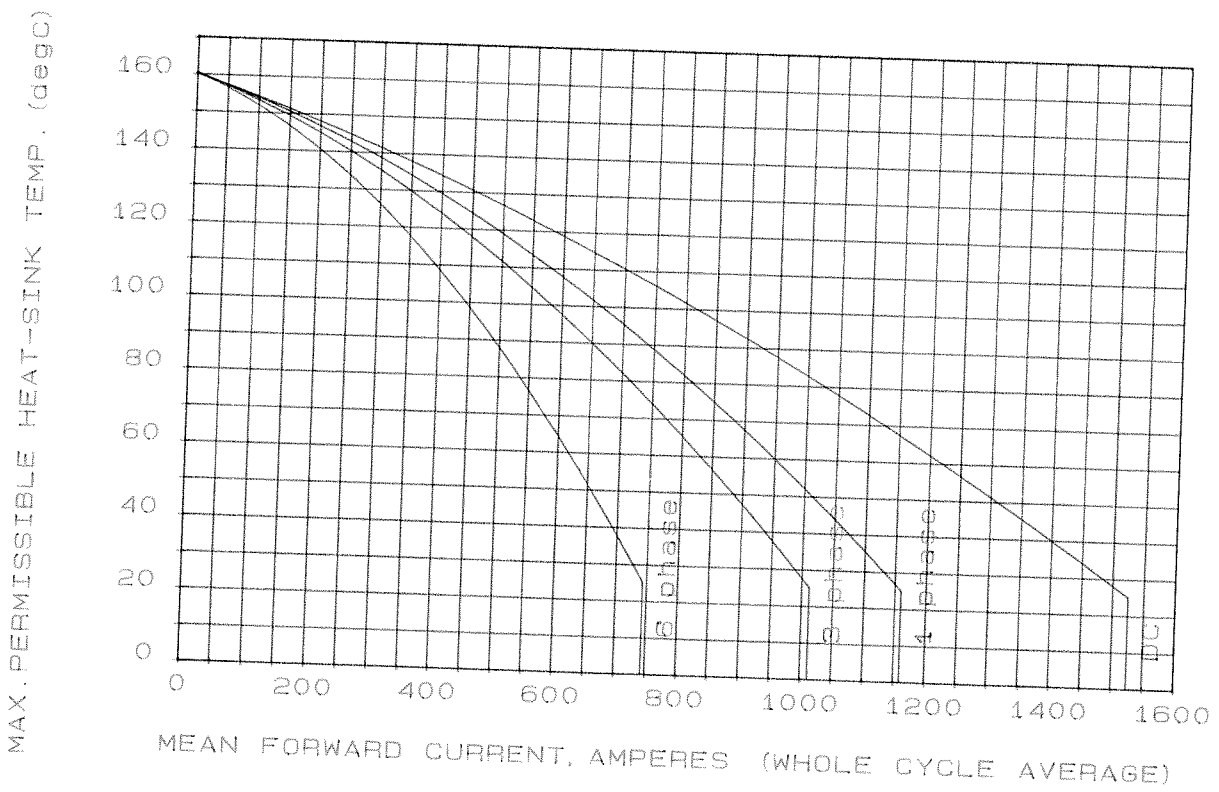
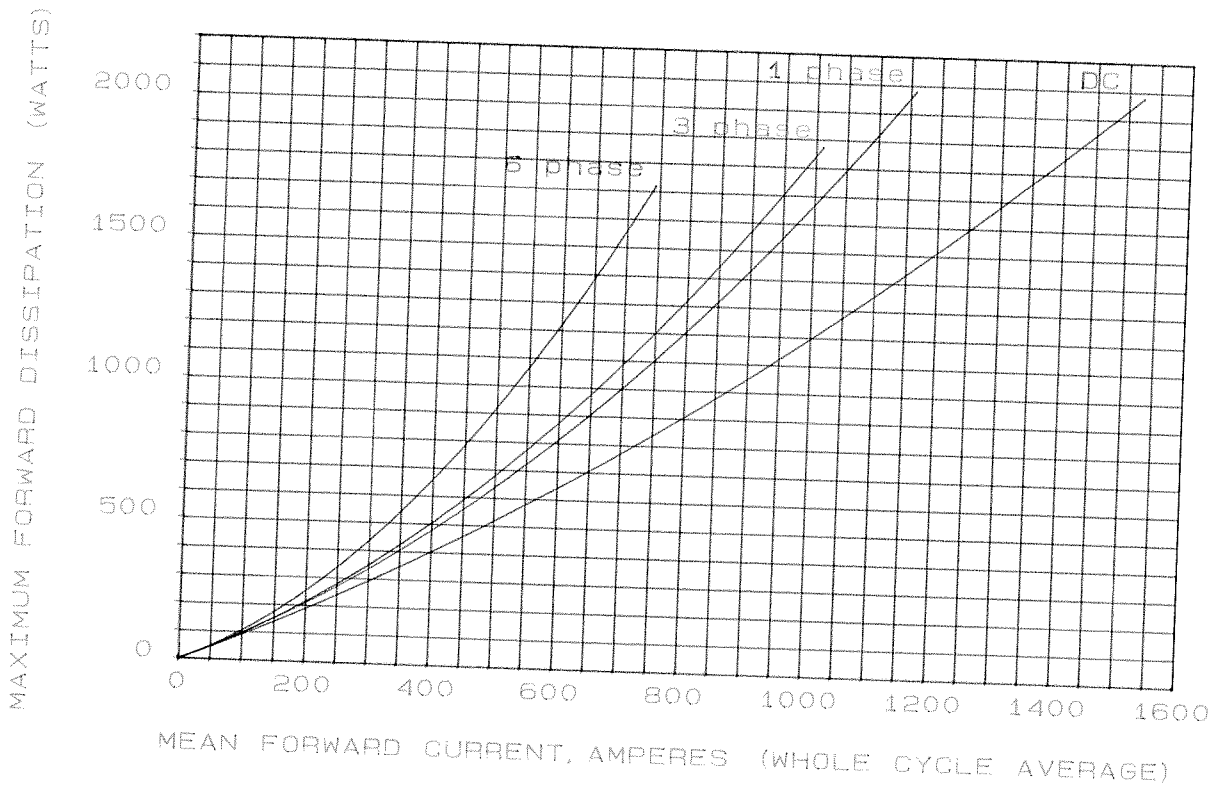
This Report is applicable to higher or lower voltage grades when supply has been agreed by Sales/Production.

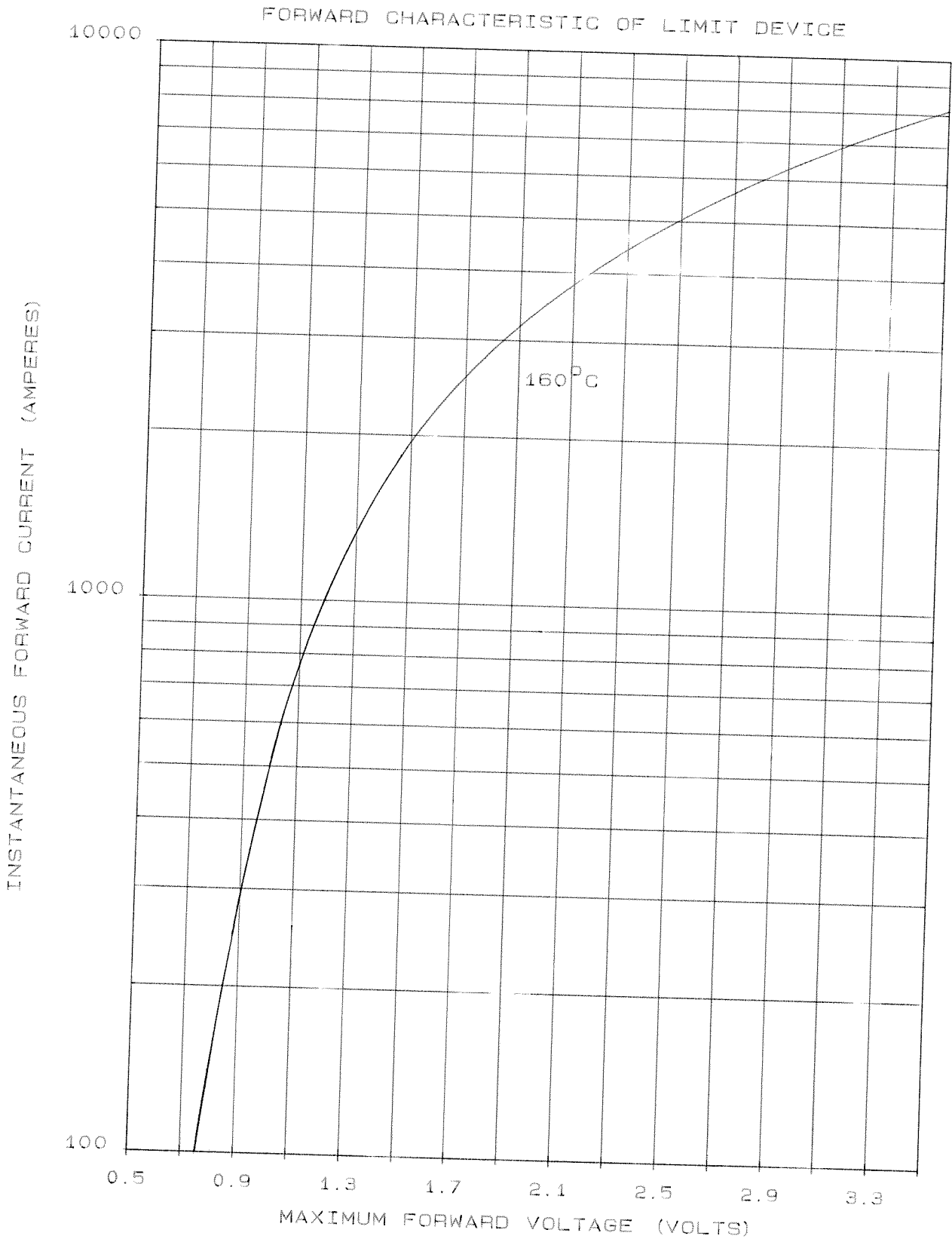
2. A blocking voltage derating factor of 0.13% per deg. Celsius is applicable to this device for T_j below 25°C.

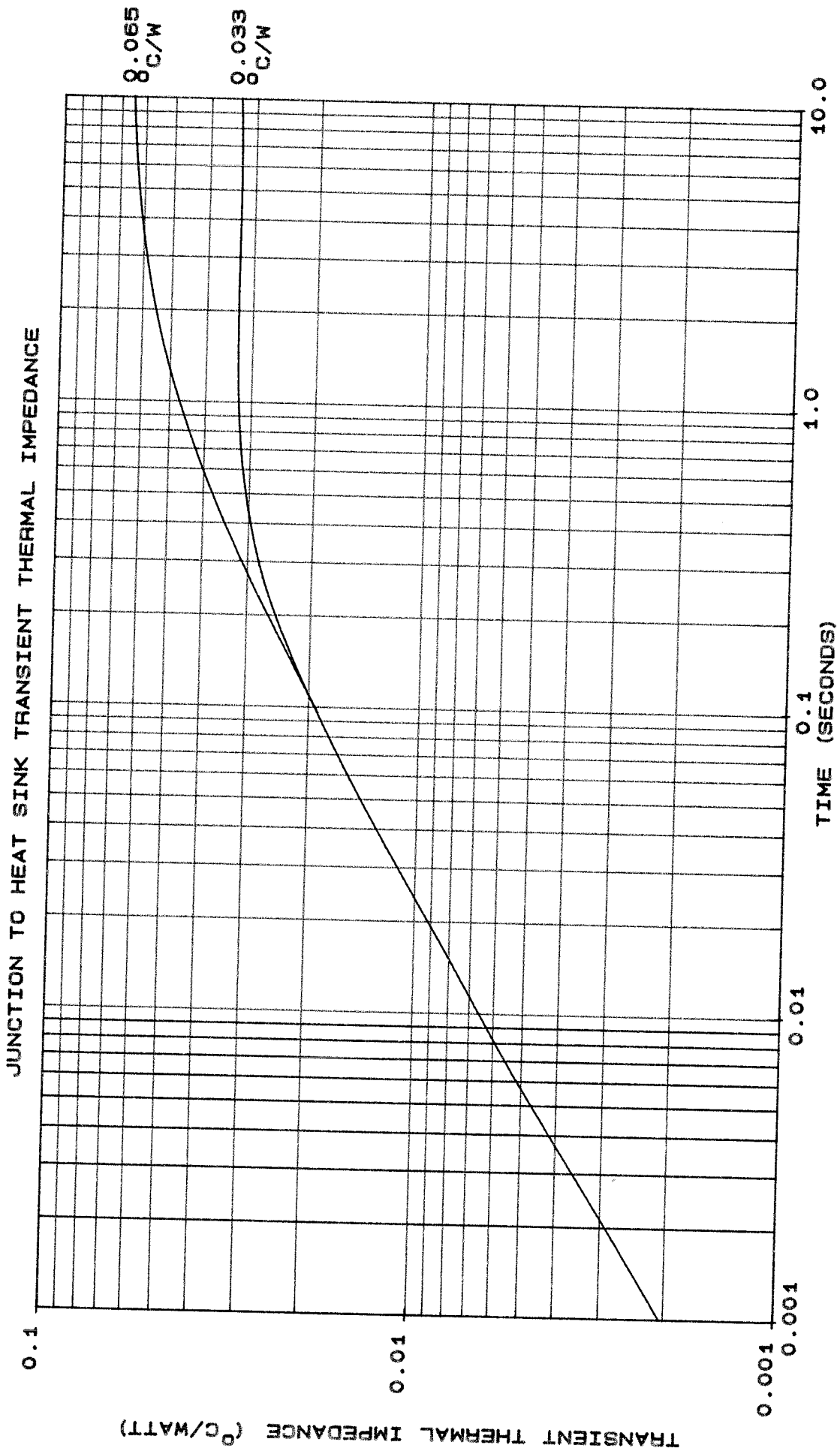
DOUBLE SIDE COOLED



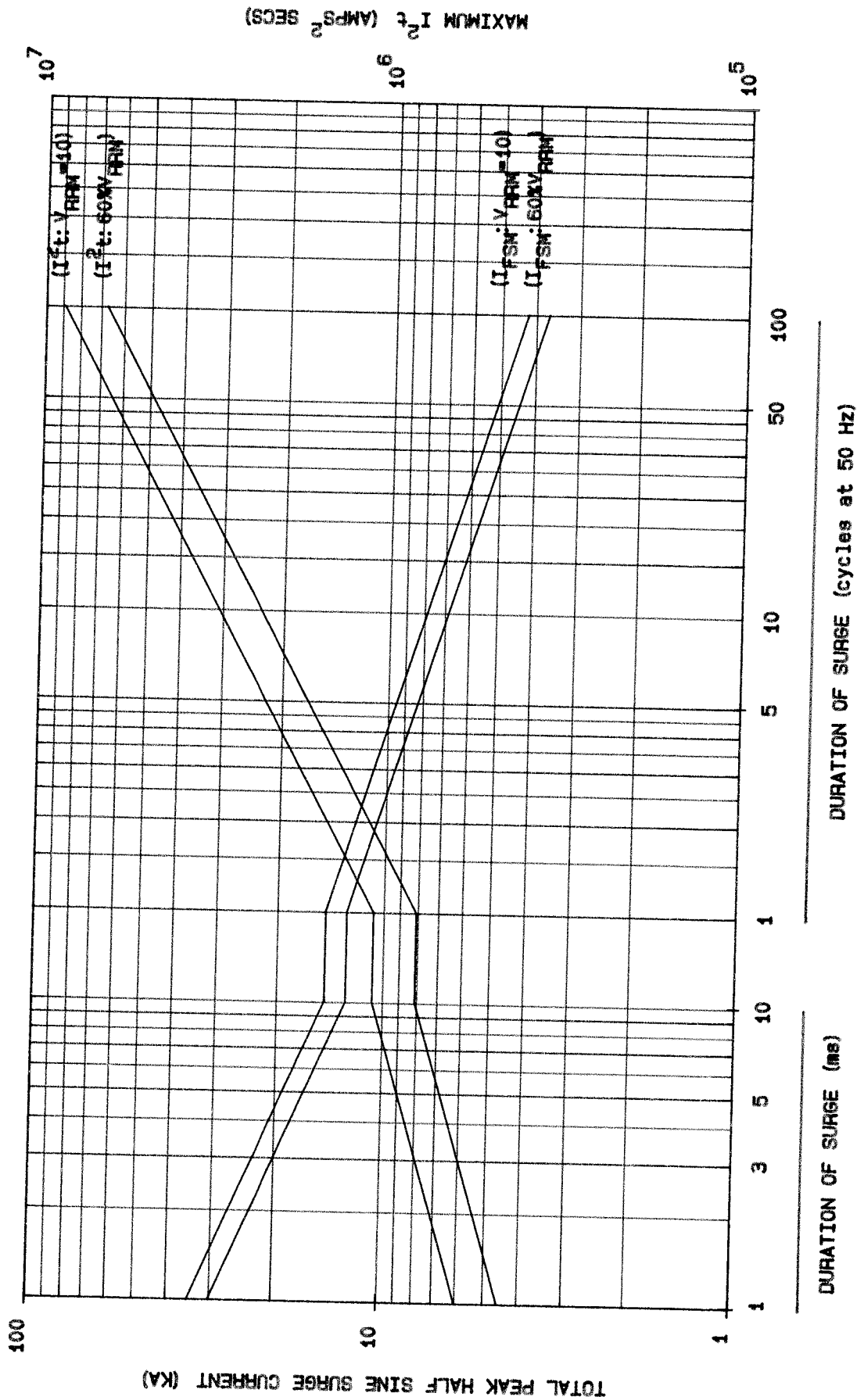
SINGLE SIDE COOLED







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



TOTAL PEAK HALF SINE SURGE CURRENT (KA)

MAXIMUM I²t (AMPS² SECS)

100

10

1

10⁷

10⁶

10⁵

(I²t: V RRM=10)

(I²t: 60KV RRM)

(I_{FSM}: V RRM=10)

(I_{FSM}: 60KV RRM)

DURATION OF SURGE (ms)

DURATION OF SURGE (cycles at 50 Hz)

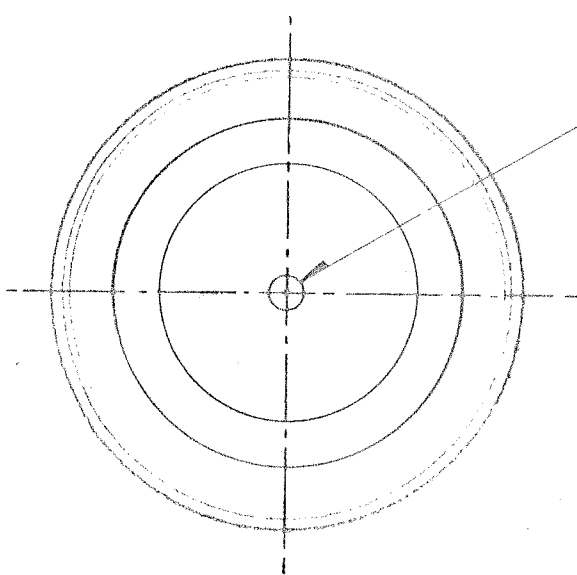
SCALE	1/1
DRN	
CHKD	
APPD	
GEC-1	
CS	1
QA	1
LP	2
HP	2
A	
S	NI

INTERNATIONAL OUTLINE No. **DO-200AB**
 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.

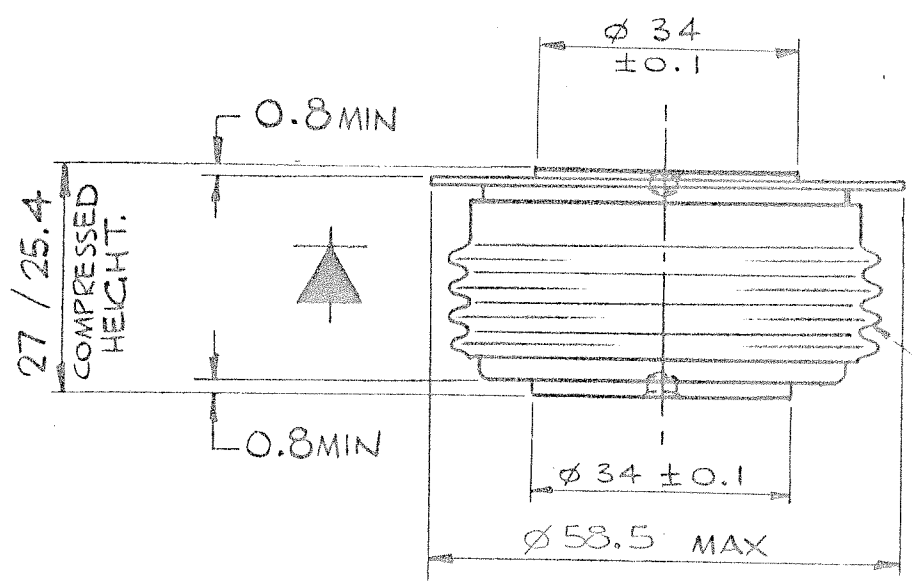
TYPE NUMBER	
CXC 935	CXC 220
CXC 805	CXC 221
CXC 625	CXC 471
CXC 500	CXC 521
CXC 510	CXC 721
CXC 371	

CLAMPING FORCE TO BE APPLIED ON ϕ 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**



ϕ 3.6/3.5 x 1.9 MIN
 DEPTH 2-HOLES.
 ONE IN CATHODE
 AND ONE IN ANODE.



CREEP PATH
 25 MIN.

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 WESTCODE[®]
 SEMICONDUCTORS

THIRD ANGLE PROJECTION



DIMNS. IN MILLIMETRES

DRG. No.
100A243

ISS	REVISIONS
1	7.9.77 P188
2	P304 15.5.78 ø 34 WAS ø 38. 1.9 MIN WAS 3 MIN. 0.8 MIN WAS 0.5 & 1.5 MIN. <i>GS</i>
3	12.9.78 ø 58.5 WAS ø 60. CLAMP FORCE WAS 000-1800 kgf. <i>GS</i>
4	2.10.78 TYPE N° ADDED <i>GS</i>