

# Rectifier Diode

## W2134NC300 to W2134NC400

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

(Rating Report 90NR19 Issue 1)

This data reflects the old part number for this product which is: SW26-36CXC930. 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  
 Device no longer available for grades 26 & 28 (2600V & 2800V  $V_{RRM}$ )

Please use the following link to view an up to date outline drawing for this device  
[Outline W5](#)

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>			
W2134	NC	◆◆	0
Fixed Type Code	Fixed Outline Code	Voltage code $V_{RRM}/100$ 30-40	Fixed Code
Typical Order Code: W2134NC360, 27.7mm clamp height, 3600V $V_{RRM}$			

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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: 90NR19

Date: 18th October, 1990

Pages: 10

Diode Type SW26-36CXC930

Written by: M. Baker

Checked: *BH*

Approved: *[Signature]*

This diode consists of a diffused 50 mm diameter silicon slice mounted in a cold weld capsule housing.

Ratings

Voltage Grades	: 26-36
$V_{RSM}$	: 2700-3700V
$V_{RRM}$	: 2600-3600V
$I_{F(AV)}$ : Single Phase; 50 Hz, 180° half sinewave;	
Double side cooled $T_{HS} = 55^{\circ}C, 100^{\circ}C$	: 2130A, 1500A
Single side cooled $T_{HS} = 100^{\circ}C$	: 940A
$I_F$ (rms) max. )	: 3900A
) Double side cooled $T_{HS} = 25^{\circ}C$	
$I_F$ max. )	: 3460A
$I_{FSM}$ : $t = 10ms$ half sinewave; $T_J$ (initial) = $160^{\circ}C$ ;	
$V_{RM} = 0.6 V_{RRM}(Max)$	: 20000A
$I_{FSM}$ ; $t = 10ms$ half sinewave; $T_J$ (initial) = $160^{\circ}C$ ; $V_{RM} \leq 10V$	: 24000A
$I^2t$ : $t = 10ms$ ; $T_J$ (initial) = $160^{\circ}C$ ; $V_{RM} = 0.6 V_{RRM}(Max)$	: $2.00 \times 10^6 A^2 SECS$
$I^2t$ : $t = 10ms$ ; $T_J$ (initial) = $160^{\circ}C$ ; $V_{RM} \leq 10V$	: $2.88 \times 10^6 A^2 SECS$
$I^2t$ : $t = 3ms$ ; $T_J$ (initial) = $160^{\circ}C$ ; $V_{RM} \leq 10V$	: $2.20 \times 10^6 A^2 SECS$
$T_{HS}$ Operating range	: -55 to $+160^{\circ}C$
$T_{stg}$ ; Non-operating	: -55 to $+190^{\circ}C$

Characteristics

(Maximum values unless stated otherwise)

$V_O$ :	$T_J = 160^\circ\text{C}$	:	0.865V
$r_s$ :	$T_J = 160^\circ\text{C}$	:	0.26 mohms
COLD			
A :	$T_J = 25^\circ\text{C}$	:	1.075751
B :	$T_J \leq 25^\circ\text{C}$	:	-1.870484E-2
C :	$T_J = 25^\circ\text{C}$	:	1.119432E-4
D :	$T_J = 25^\circ\text{C}$	:	4.173847E-3
HOT			
A :	(Constant)	:	0.7000012
B :	(B x ln i)	:	4.236071E-2
C :	(C x i)	:	2.948272E-4
D :	(D x $\sqrt{i}$ )	:	-5.121299E-3
$V_{FM}$ :	$I_{FM} = 3800\text{A}$ $T_{VJ} = 160^\circ\text{C}$	:	1.86V
$R_{th}$ (J-HS) double side cooled		:	0.022 K/W
single side cooled		:	0.044 K/W
$I_{RRM}$ :	$T_J = 160^\circ\text{C}$ $V_{RM} = V_{RRM}(\text{Max})$	:	50mA
$Q_{RA}$ :	$I_{TM} =$ $T_{VJ} =$	:	
$Q_{RM}$ :	$V_{RM} =$ $T_{VJ} =$	:	
Mounting Force		:	1900-2600 Kg.f
Outline Drawing		:	100A249
JEDEC Outline No.		:	DO-200AC

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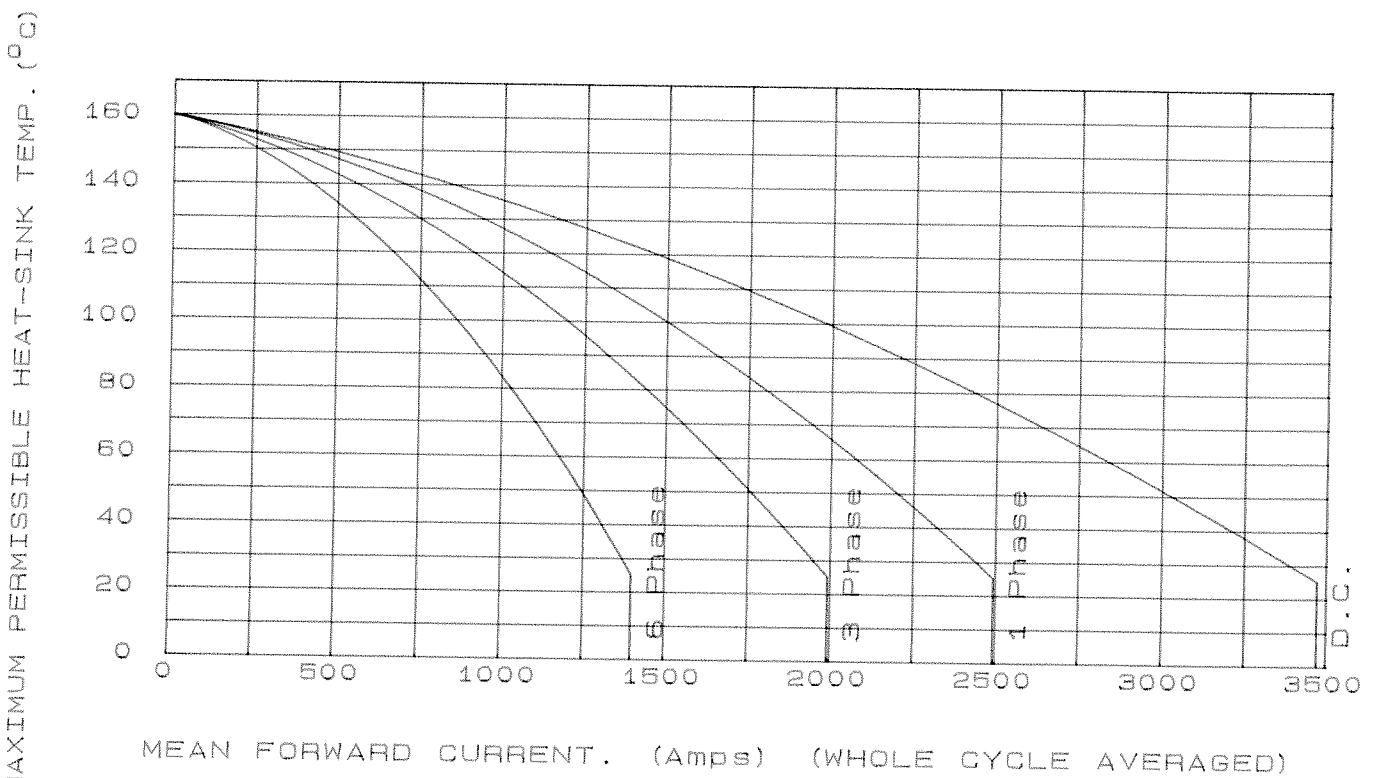
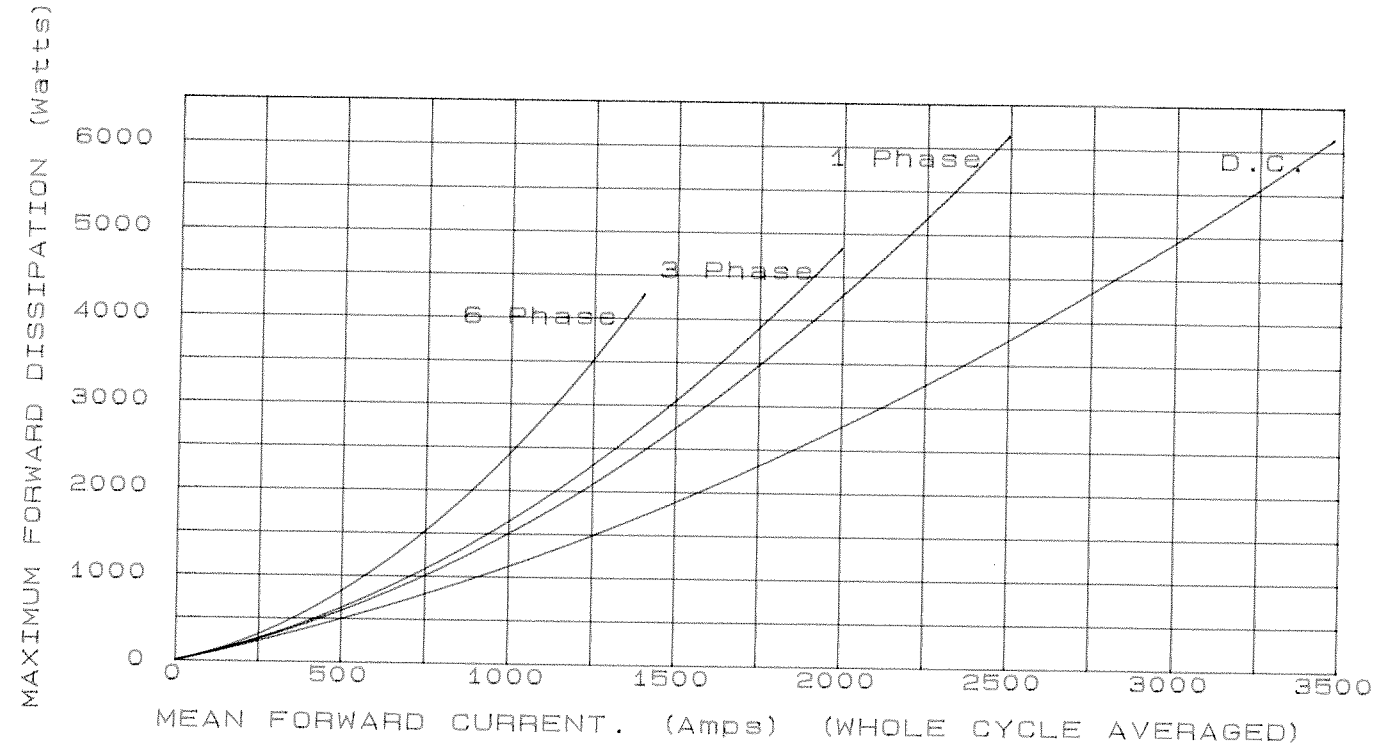
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Voltage Ratings

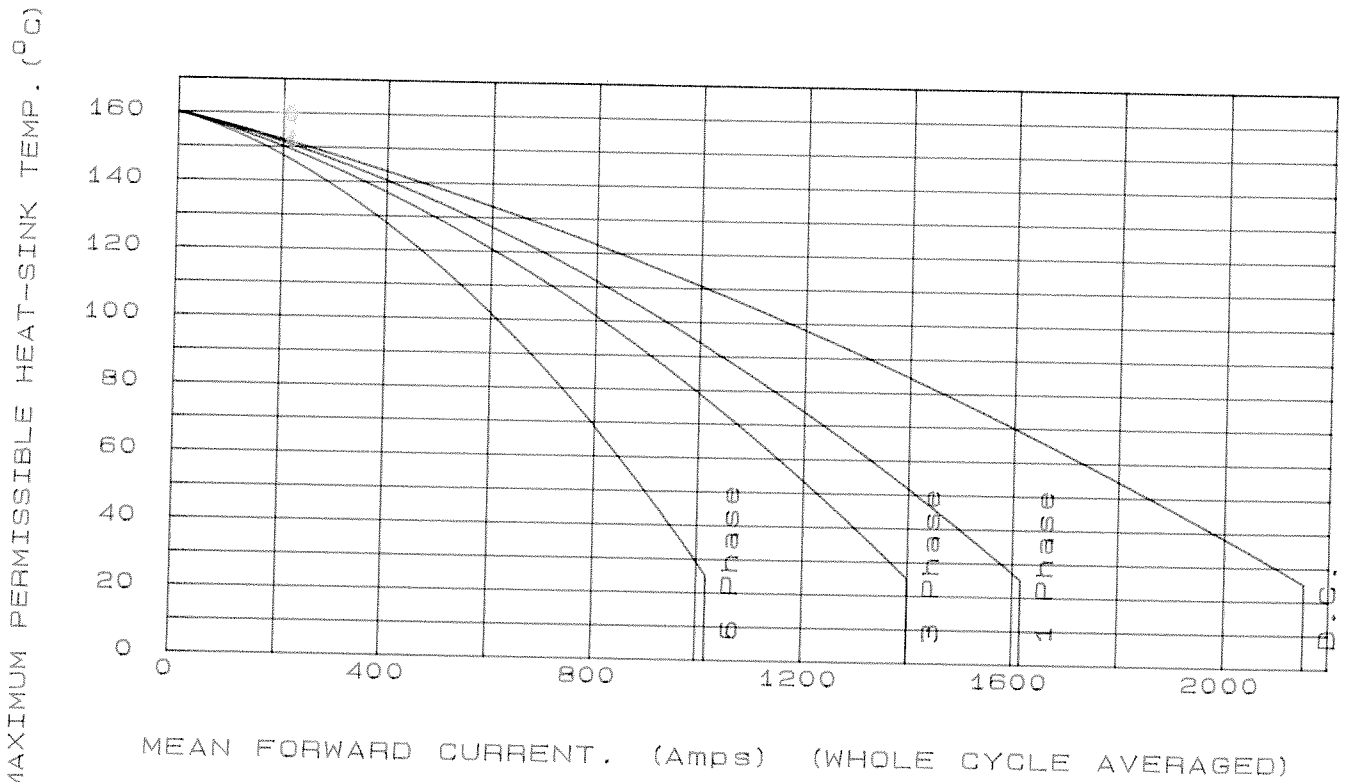
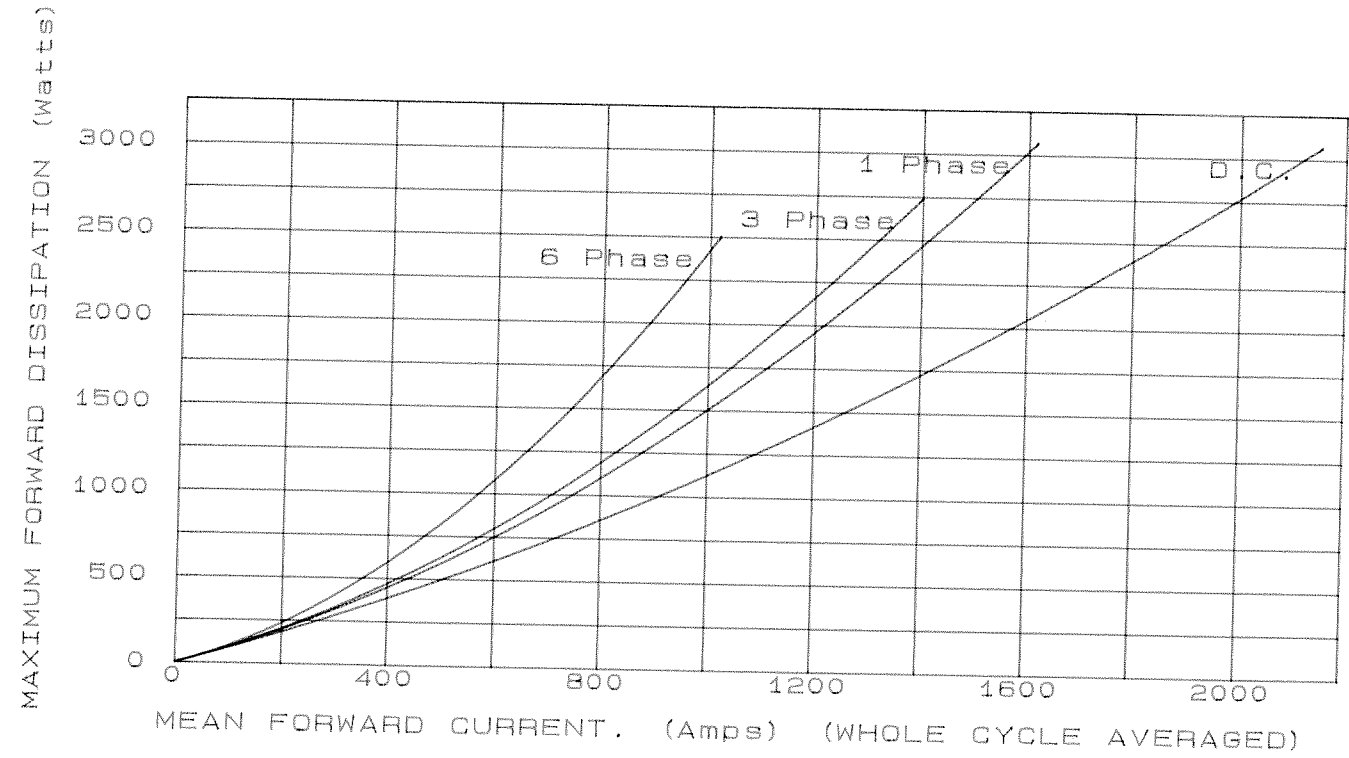
Voltage Class	$V_{RRM}$ V	$V_{RSM}$ V
26	2600	2700
28	2800	2900
30	3000	3100
32	3200	3300
34	3400	3500
36	3600	3700

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

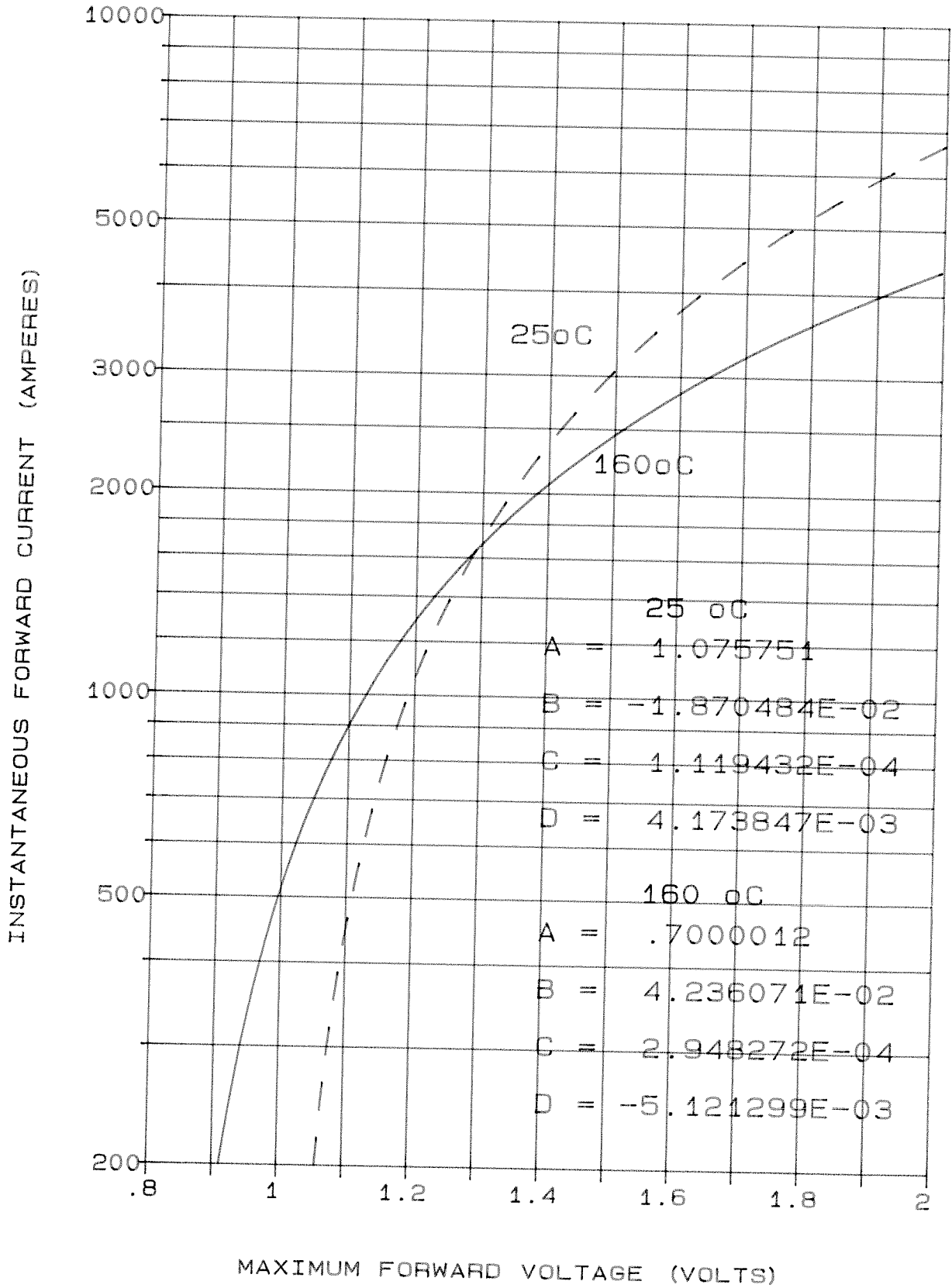
DOUBLE SIDE COOLED



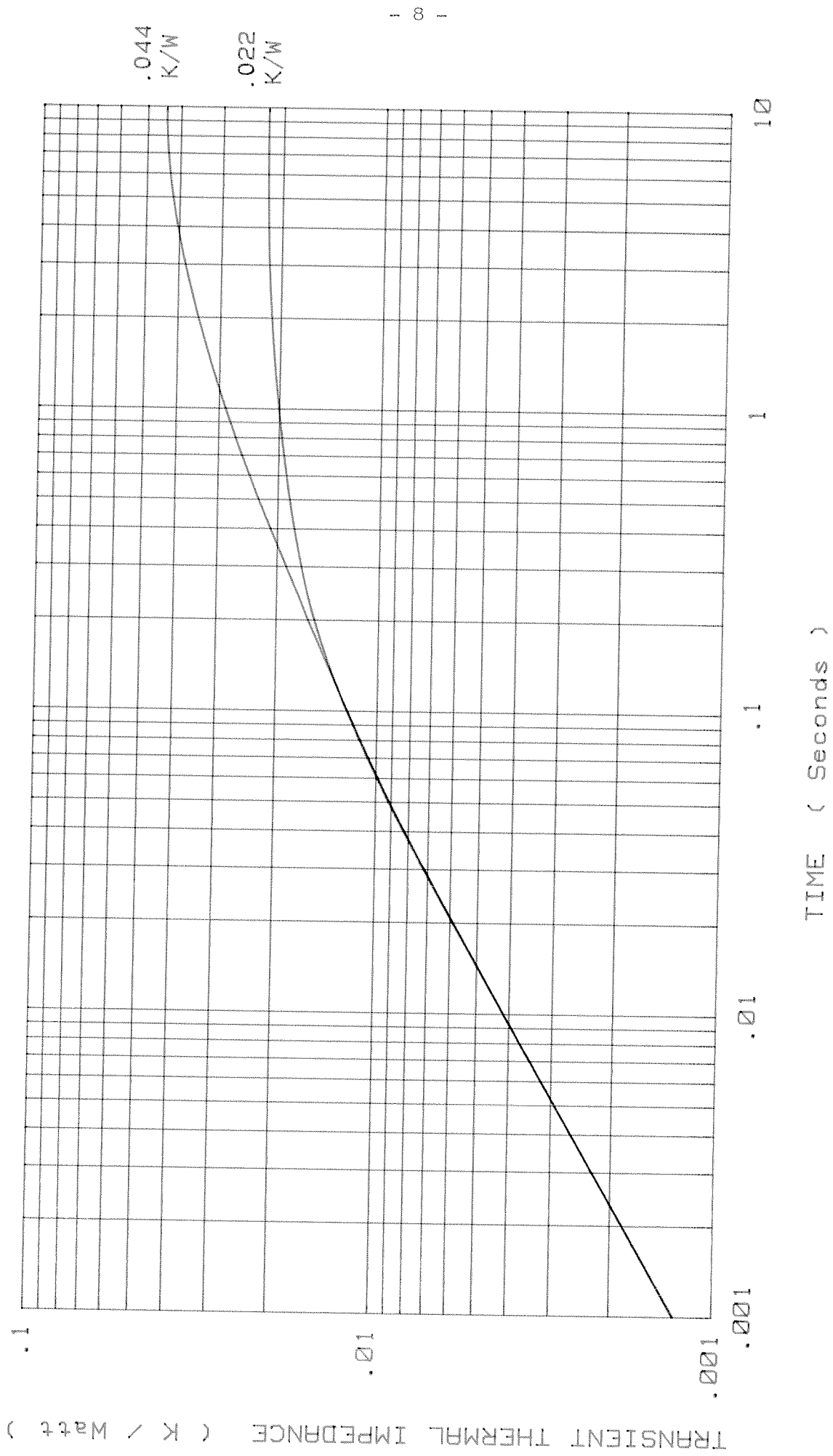
SINGLE SIDE COOLED



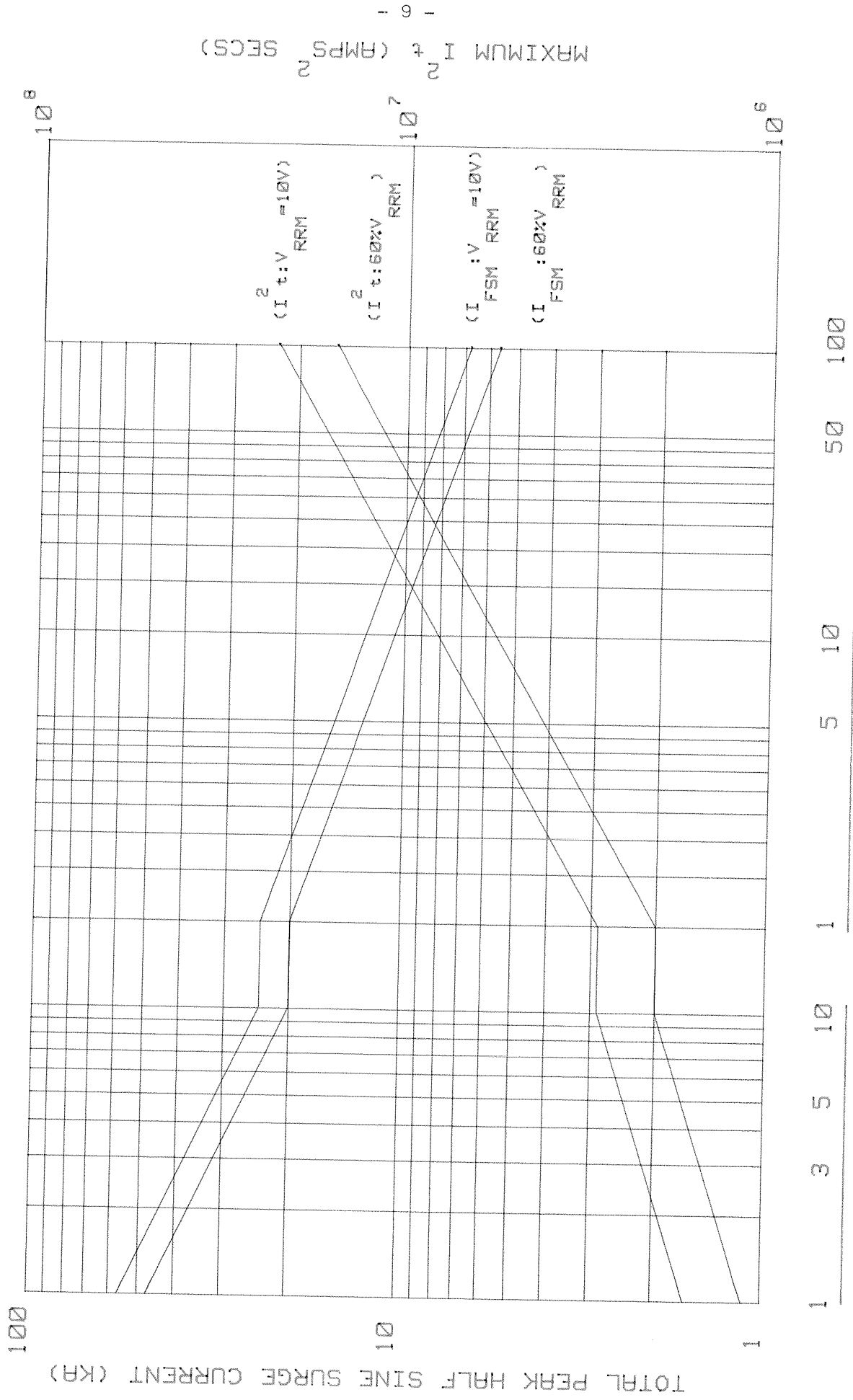
FORWARD CHARACTERISTIC OF LIMIT DEVICE



JUNCTION TO SINK TRANSIENT THERMAL IMPEDANCE



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



DURATION OF SURGE (ms)

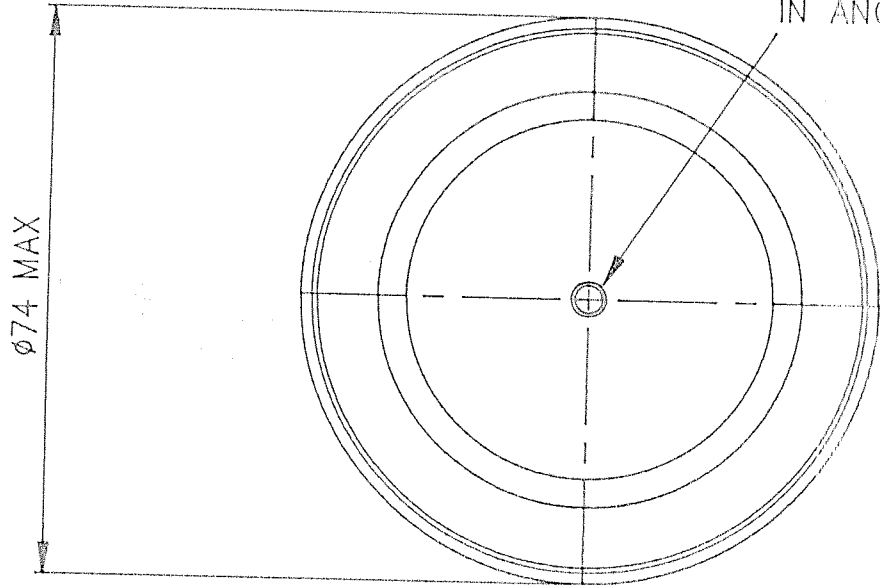
DURATION OF SURGE (cycles at 50 Hz)

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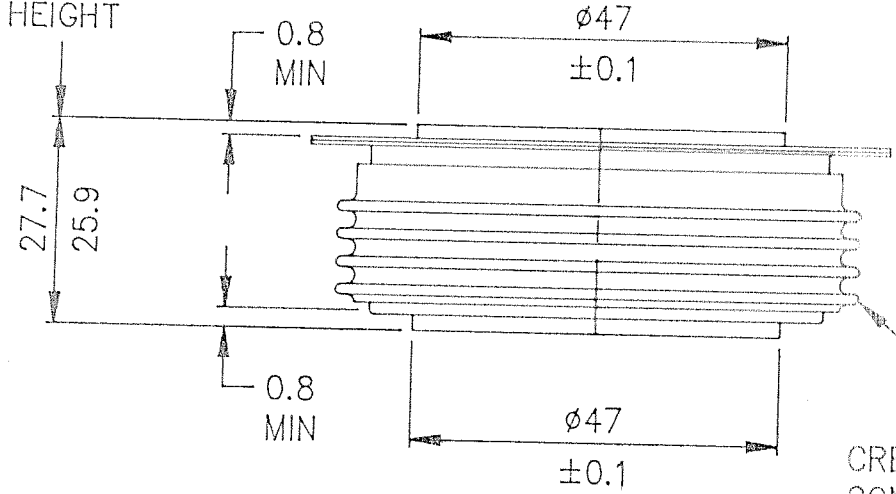
INTERNATIONAL OUTLINE No. DO-200AC  
 G.A. DWG No. 159B100H301-H310  
 WEIGHT. 480 GRAMS - 10 -  
 FINISH. NICKEL PLATE  
 DEVICE MOUNTING: CLAMPING FORCE TO BE APPLIED ON CENTRE LINE OF LOCATION HOLES AND BE EVENLY DISTRIBUTED OVER AREA OF CONTACT. FLAT TOL. ON SURFACES TO WHICH DEVICE IS CLAMPED TO BE 0.04 WIDE. CLAMPING FORCE = 1900-2600kgf.

TYPE NUMBER	
CXC500	CXC990
CXC620	CXC11C
CXC680	CXC14C
CXC815	
CXC820	CXC624
CXC930	CXC824
CXC950	CXC924

ø3.6/3.5x3 MIN.  
 DEPTH 2-HOLES, ONE IN CATHODE AND ONE IN ANODE.



COMPRESSED HEIGHT



CREEP PATH OVER CONVOLUTION = 25.4 MIN.

SCALE 1/1	ISS	REVISIONS
DRAWN HDN	4	11-09-90
		REDRAWN ON CAD
		HDN

THIRD ANGLE PROJECTION.
DWG. COMPLIES WITH BS 308.
DIMNS. IN MILLIMETRES.
DWG No. 100A249

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