

Rectifier Diode

W0944WC040 to W0944WC150

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

(Rating Report 90NR27 Issue 2)

This data reflects the old part number for this product which is: SW02-15CXC470. 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 grade 02 (200V V_{RRM})

Please use the following link to view an up to date outline drawing for this device
[Outline W1](#)

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			
W0944	WC	◆◆	0
Fixed Type Code	Fixed Outline Code	Voltage code $V_{RRM}/100$ 04-15	Fixed Code
Typical Order Code: W0944WC100, 14.4mm clamp height, 1000V 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: 90NR27 Issue 2

Date: 12th May, 1992

Origin: Q.E.L.

Pages: 10

Diode Type SW02-15CXC470

Written by: M. Baker

Checked: M.B.

Approved: 

This diode consists of a diffused 24 mm silicon slice mounted in a cold weld capsule housing.

This report supersedes Report 90NR27 Issue 1.

Ratings

Voltage Grades	:	02-15
V_{RSM}	:	300-1600V
V_{RRM}	:	200-1500V
$I_{F(AV)}$: Single Phase; 50 Hz, 180° half sinewave;		
Double side cooled $T_{HS} = 55^{\circ}C, 100^{\circ}C$	:	945A; 717A
Single side cooled $T_{HS} = 100^{\circ}C$	:	430A
I_F (rms) max.)	:	1694A
) Double side cooled $T_{HS} = 25^{\circ}C$	:	1430A
I_F max.)	:	
I_{FSM} : $t = 10ms$ half sinewave; T_J (initial) = $190^{\circ}C$;		
$V_{RM} = 0.6 V_{RRM(Max)}$	:	9000A
I_{FSM} ; $t = 10ms$ half sinewave; T_J (initial) = $190^{\circ}C$; $V_{RM} \leq 10V$	:	10,000A
I^2t : $t = 10ms$; T_J (initial) = $190^{\circ}C$; $V_{RM} = 0.6 V_{RRM(Max)}$	:	$.405 \times 10^6 A^2 SECS$
I^2t : $t = 10ms$; T_J (initial) = $190^{\circ}C$; $V_{RM} \leq 10V$	:	$.5 \times 10^6 A^2 SECS$
I^2t : $t = 3ms$; T_J (initial) = $190^{\circ}C$; $V_{RM} \leq 10V$	:	$.36 \times 10^6 A^2 SECS$
T_{HS} Operating range	:	-40 to $+190^{\circ}C$
T_{stg} ; Non-operating	:	-40 to $+200^{\circ}C$

Characteristics

(Maximum values unless stated otherwise)

V_O :	$T_J = 190^{\circ}\text{C}$	:	0.79V
r_s :	$T_J = 190^{\circ}\text{C}$	:	0.342mohms
COLD			
A :	$T_J = 25^{\circ}\text{C}$	:	0.933861601
B :	$T_J = 25^{\circ}\text{C}$	:	-1.98094636E-2
C :	$T_J = 25^{\circ}\text{C}$	:	2.35239372E-4
D :	$T_J = 25^{\circ}\text{C}$	:	5.52084713E-3
HOT			
A :	(Constant)	:	0.717850746
B :	$(B \times \ln i)$	:	-1.13820768E-2
C :	$(C \times i)$	:	2.83402379E-4
D :	$(D \times \sqrt{i})$	:	6.10133431E-3
V_{FM} :	$I_{FM} = 1930A$ $T_{VJ} = 190^{\circ}\text{C}$	:	1.45V
$R_{th}(J-HS)$	double side cooled	:	0.09 K/W
	Anode side cooled	:	0.186 K/W
	Cathode side cooled	:	0.174 K/W
I_{RRM} :	$T_J = 190^{\circ}\text{C}$ $V_{RM} = V_{RRM(Max)}$	:	15mA
Q_{RA} :	$I_{TM} =$ $T_{VJ} =$	:	
	$V_{RM} =$ $T_{VJ} =$	:	
Mounting Force		:	330-550 Kg.f
Outline Drawing		:	100A241
JEDEC Outline No.		:	DO-200AA

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Changes to Report 90NR27

Page 1 $I_{F(AV)}$, $I_{F(rms)}$ and I_F max.

Page 2 V_o , r_s , Hot A B C D co-efficients

New cold A B C D co-efficients

Page 3 This list

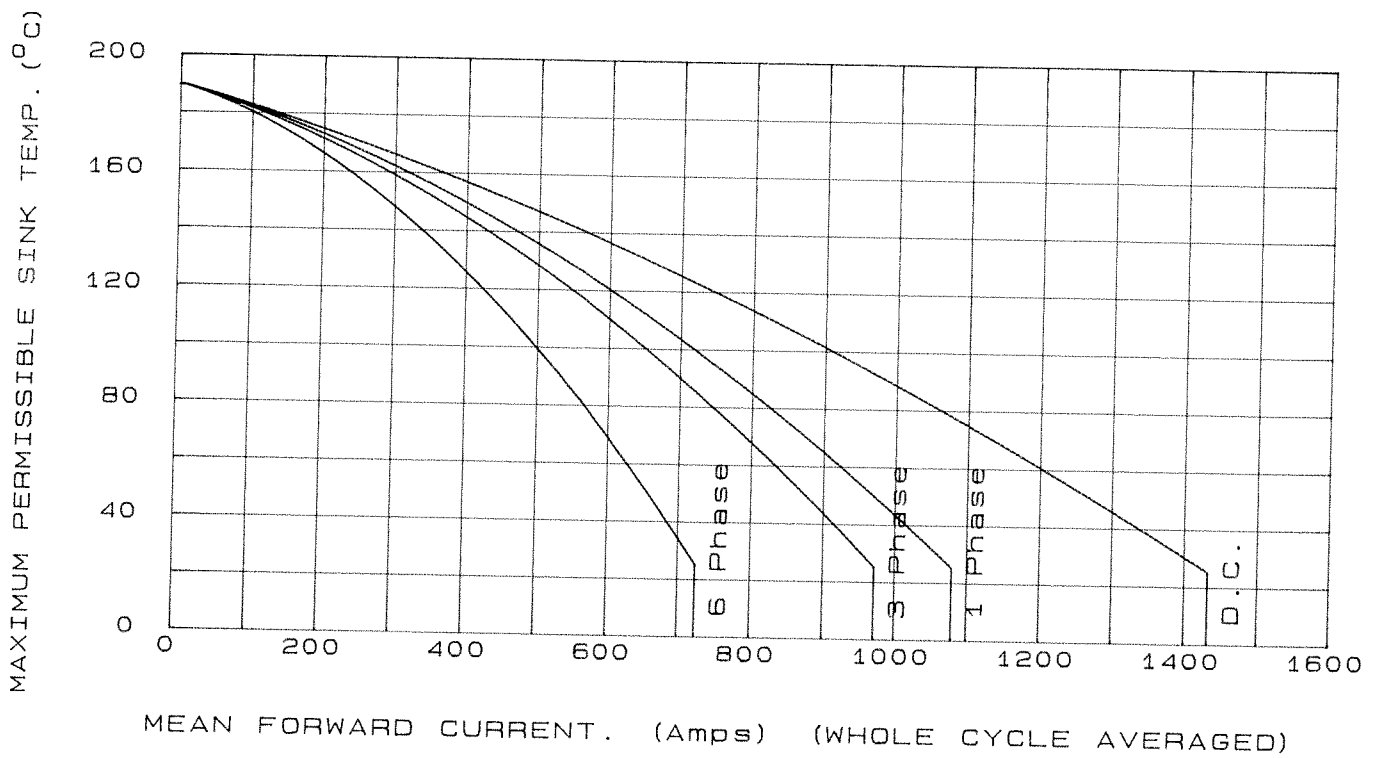
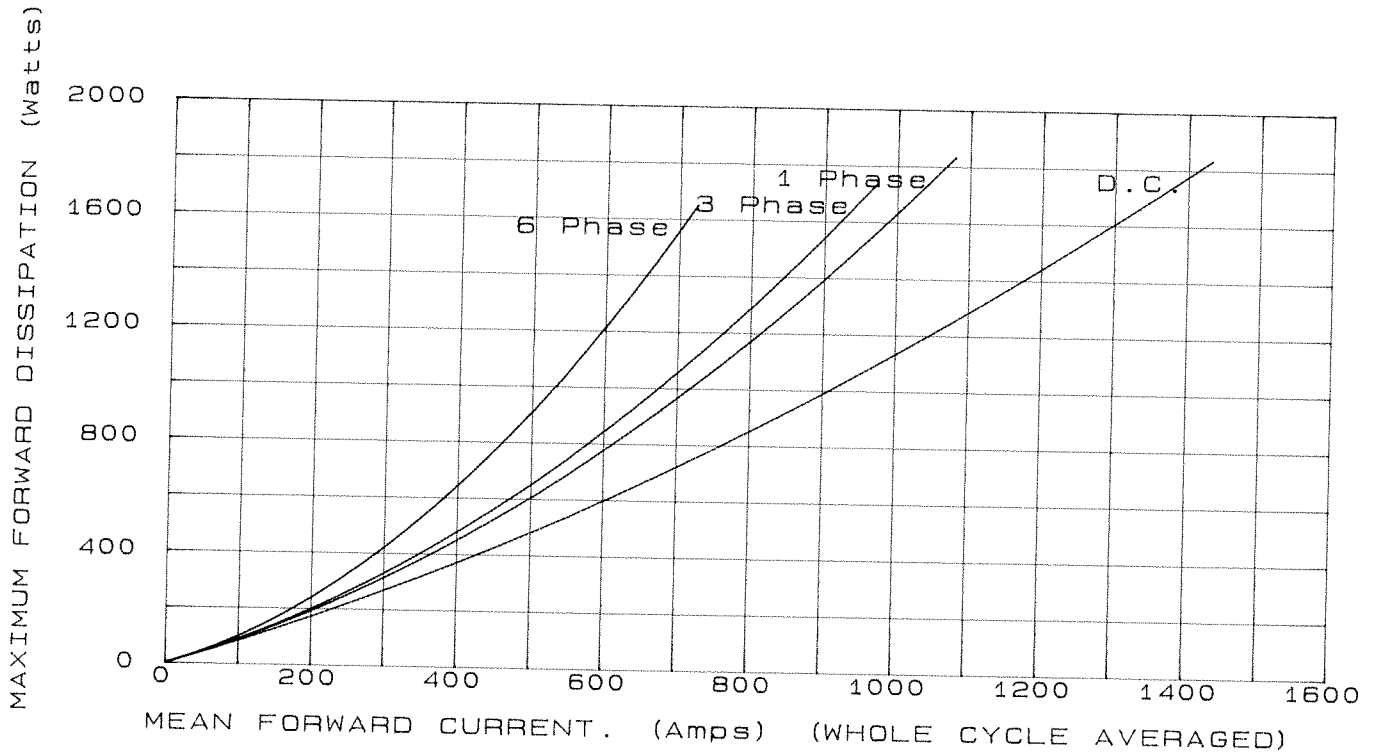
Page 5-8 Re-drawn

Voltage Ratings

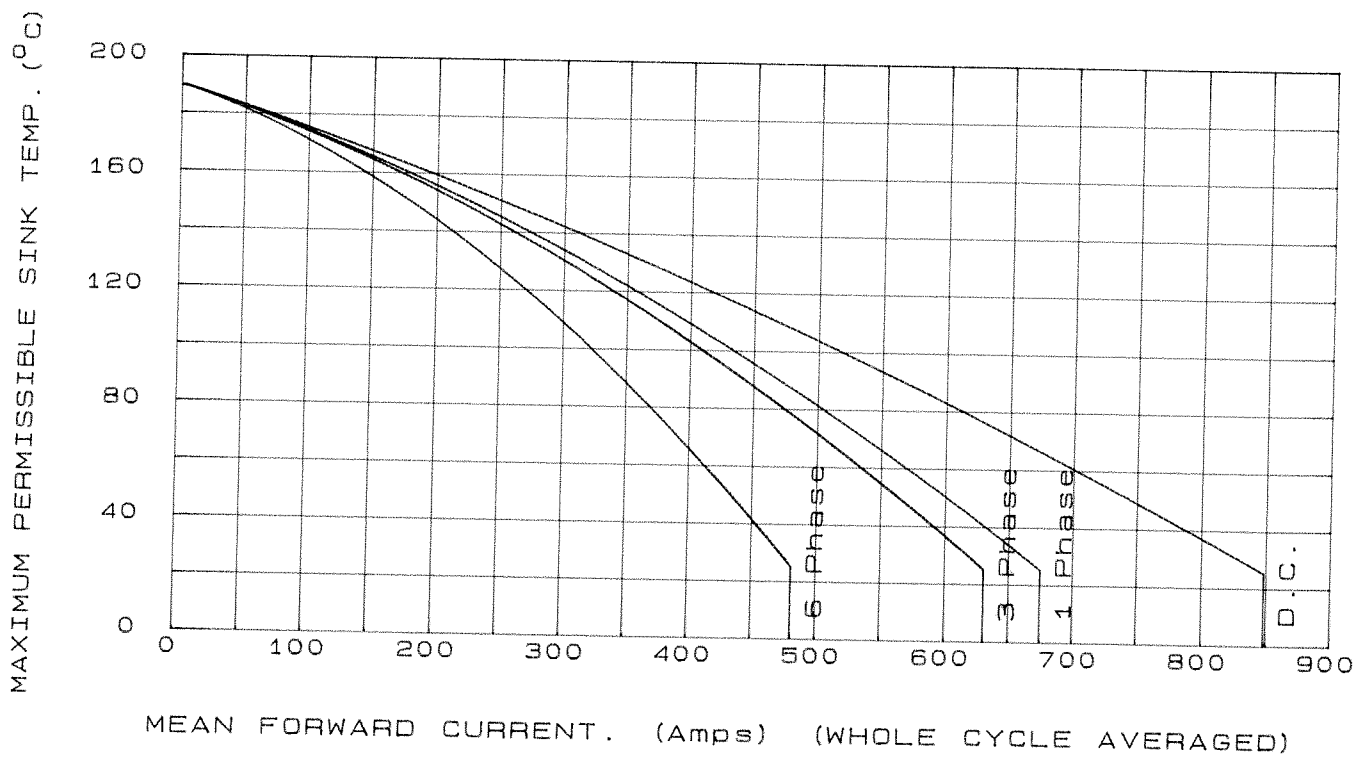
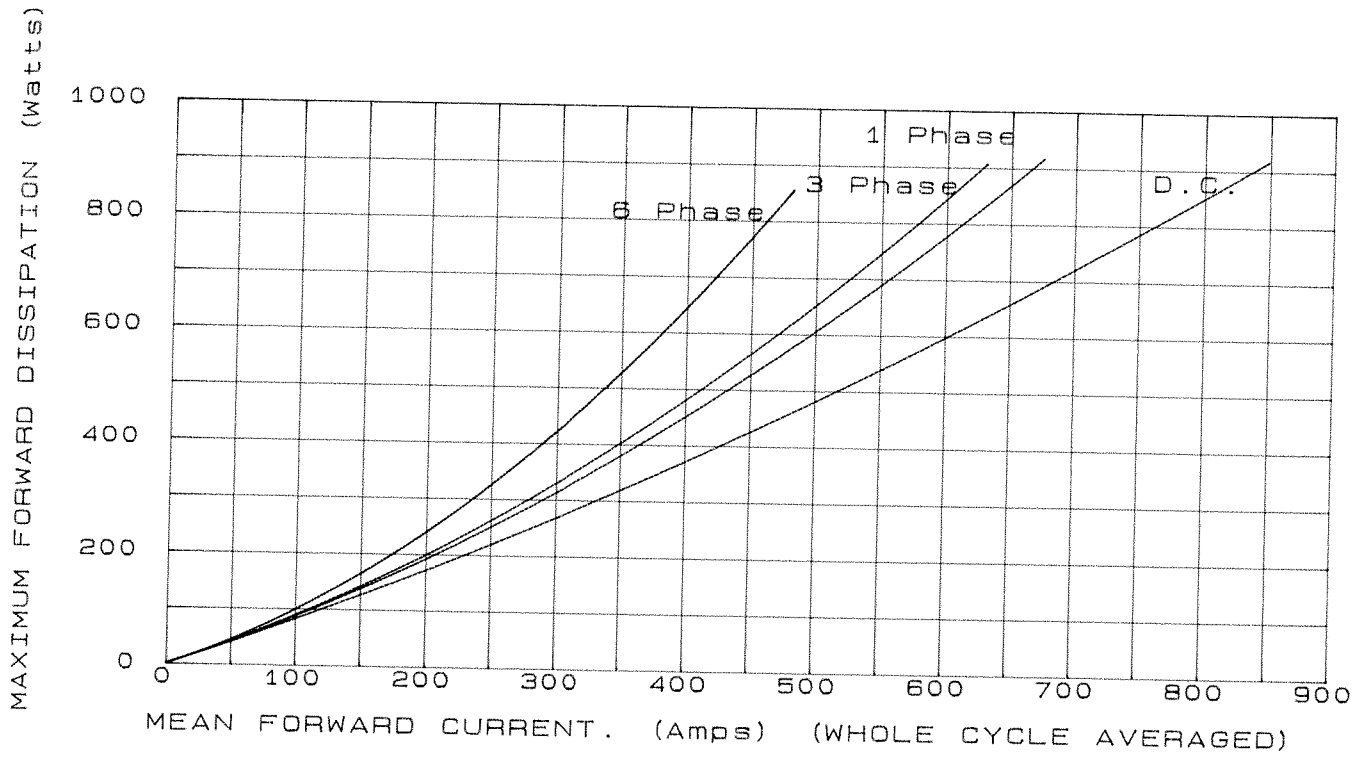
Voltage Class	V_{RRM} V	V_{RSM} V
2	200	300
4	400	500
6	600	700
8	800	900
10	1000	1100
12	1200	1300
14	1400	1500
15	1500	1600

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

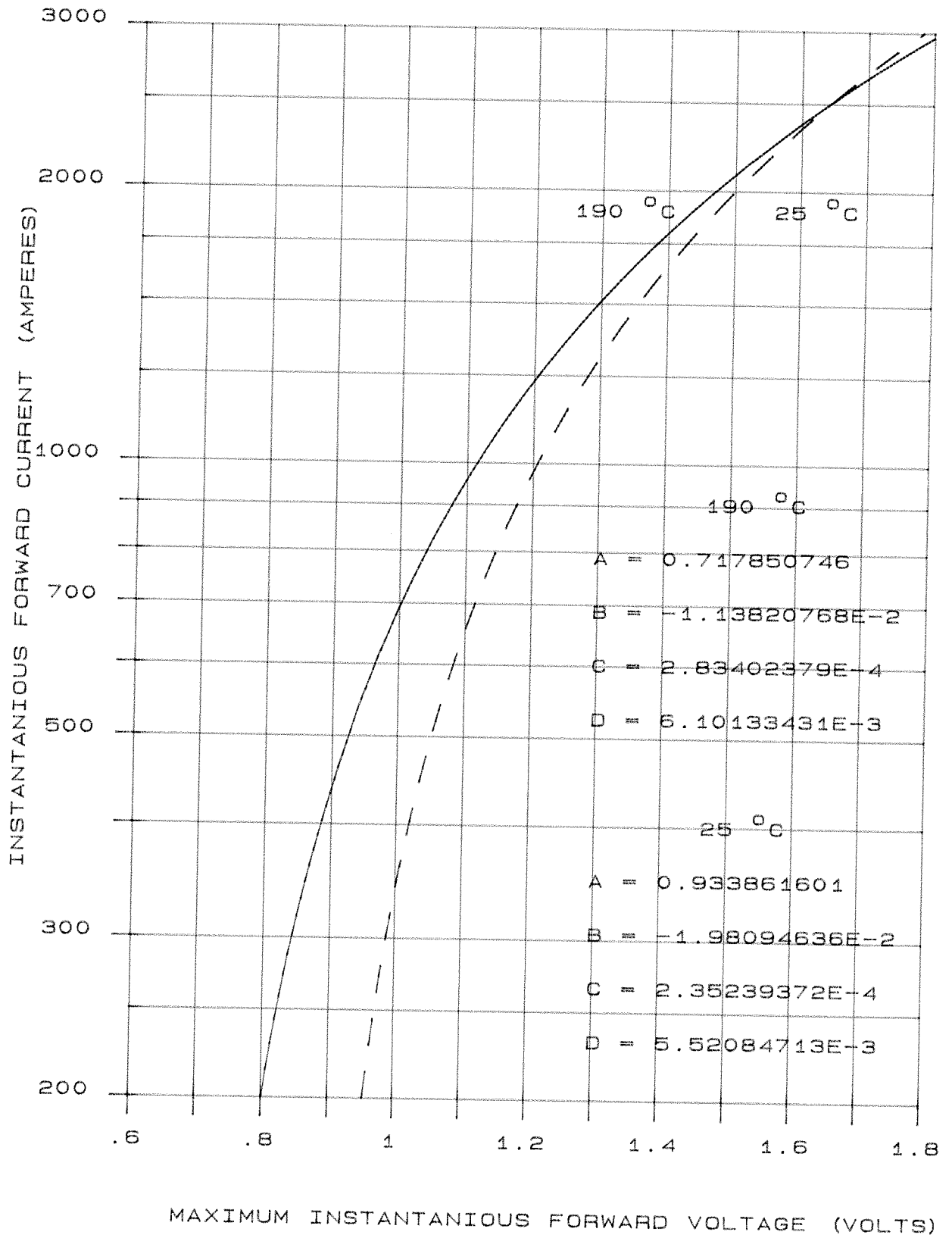
DOUBLE SIDE COOLED

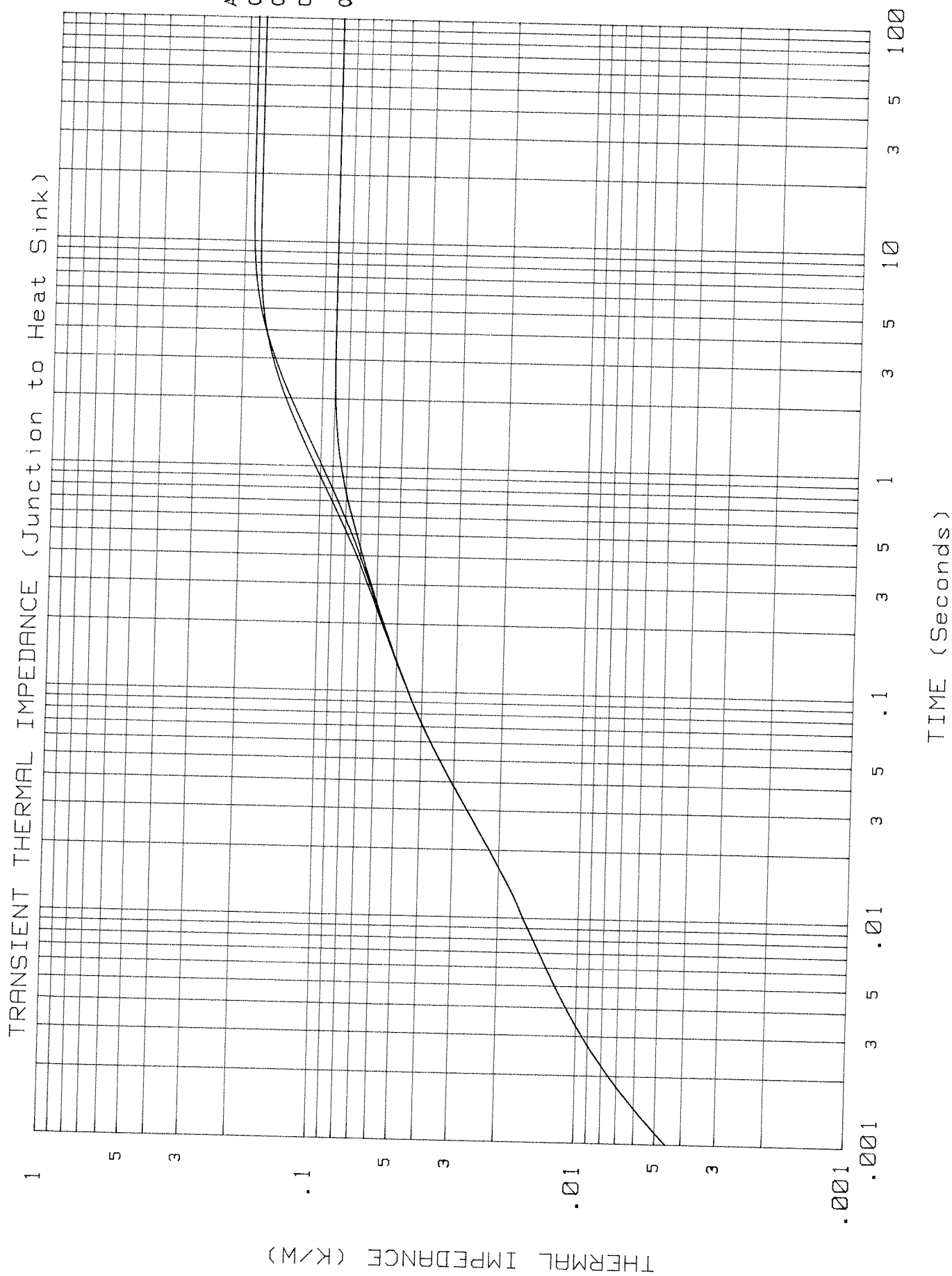


SINGLE SIDE COOLED

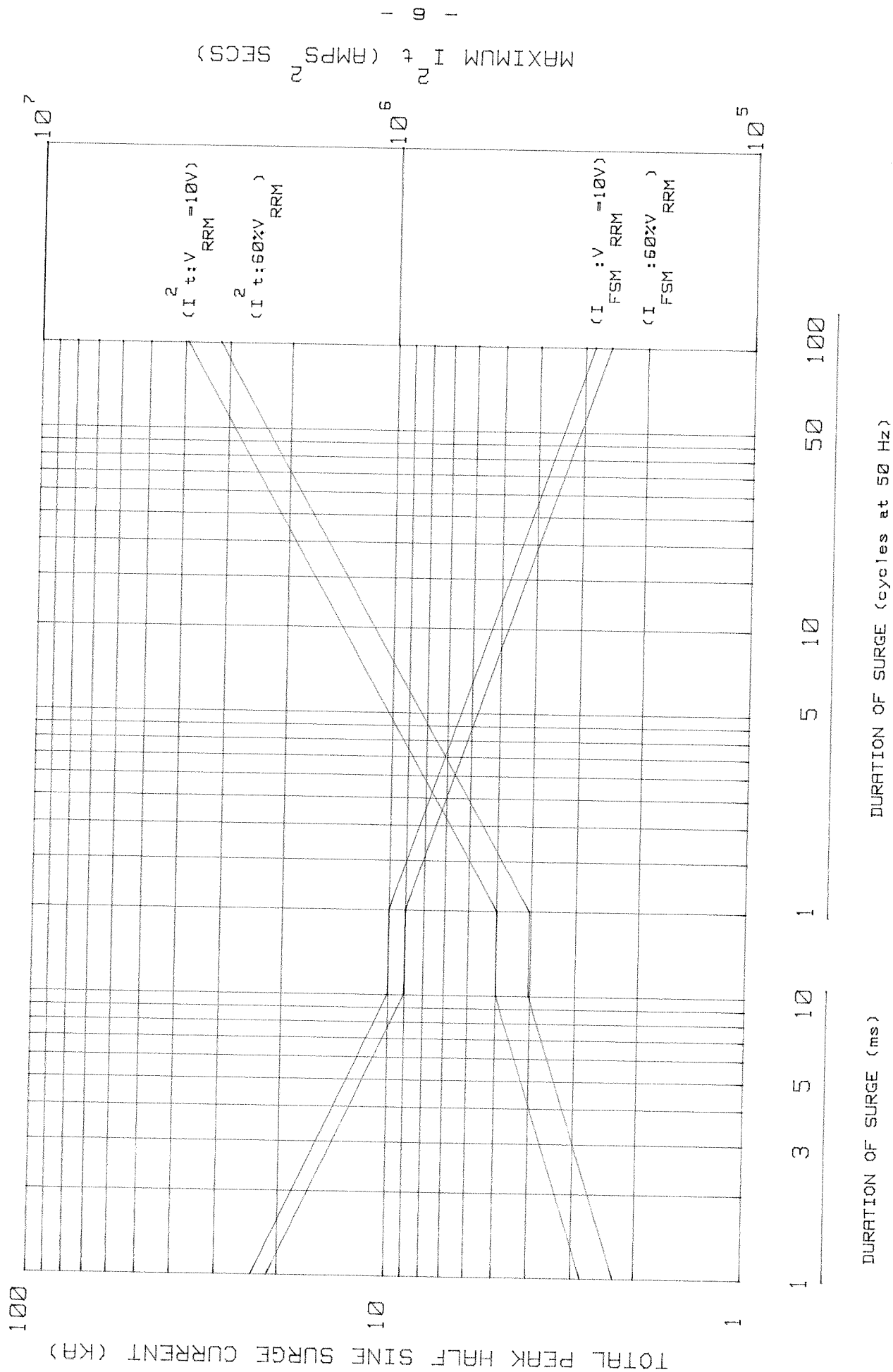


FORWARD CHARACTERISTIC
OF LIMIT DEVICE





MAXIMUM NON REPETITIVE SURGE CURRENT AT INITIAL JUNCTION TEMPERATURE 190 ° C



INTERNATIONAL OUTLINE No. DO-200AA

G.A. DWG No. 159B100H100-H110.

WEIGHT. 70 GRAMS

FINISH. NICKEL PLATE

- 10 -

TYPE NUMBER

CXC300

CXC134

CXC320

CXC144

CXC380

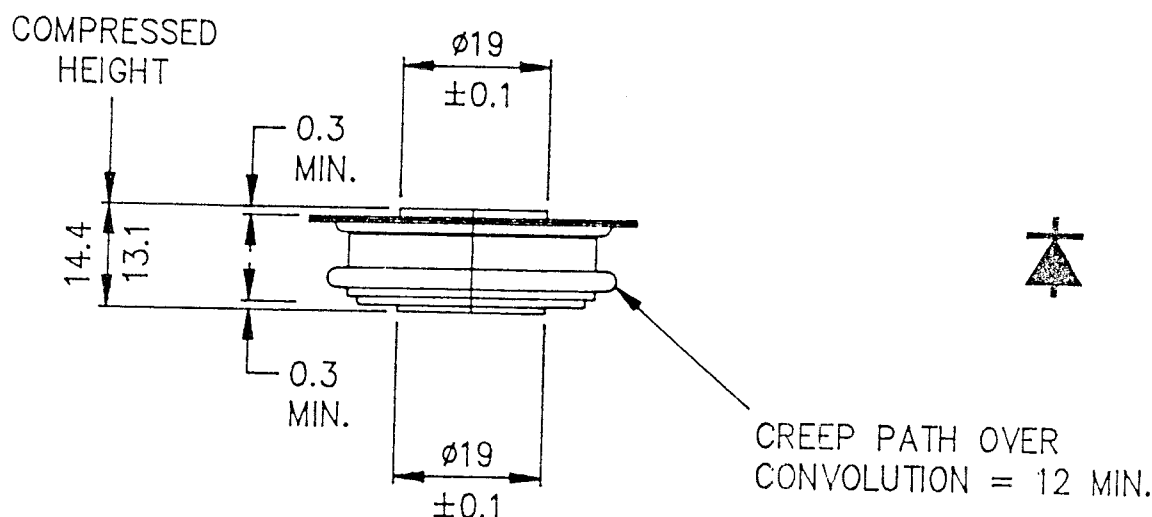
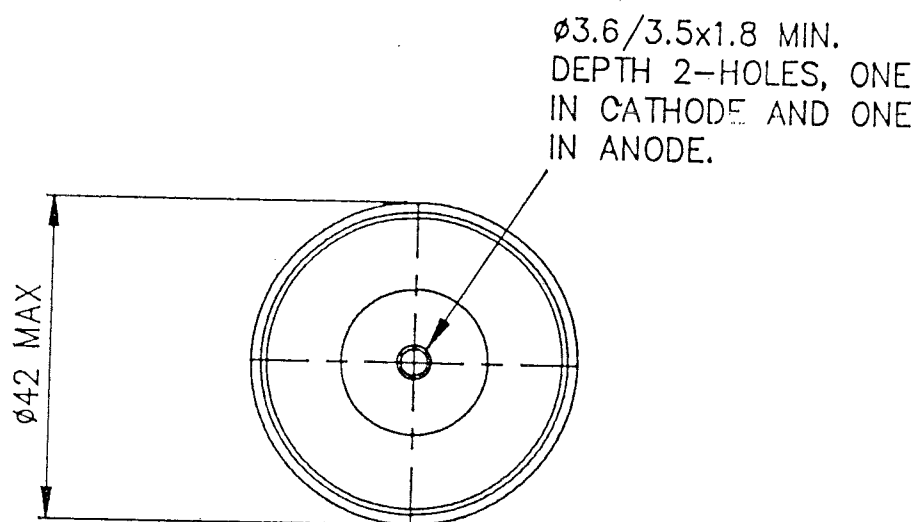
CXC170

CXC400

CXC174

CXC470

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 = 330-550kgf.



SCALE	ISS	REVISIONS
1/1	10	10-09-90
DRAWN	HDN	REDRAWN ON CAD

THIRD ANGLE PROJECTION.

DWG. COMPLIES WITH BS 308.

DIMNS. IN MILLIMETRES.

DWG No.

100A241



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