

# Rectifier Diode

## Types W6262Z#120 to W6262Z#240

The data sheet on the subsequent pages of this document is a scanned copy of existing data for this product.  
(Rating Report 96DR07 Issue 1)

This data reflects the old part number for this product which is: SW12-24CXC2850.  
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:  
Only ZC outline drawing (W7) in datasheet  
No reverse recovery data available

The following links will direct you to the appropriate outline drawings  
[Outline W7](#) – 37.7mm Clamp height capsule  
[Outline W42](#) – 26mm Clamp height capsule

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>			
W6262	Z#	◆◆	0
Fixed Type Code	ZC – 37.7mm Clamp height capsule ZD – 26mm Clamp height capsule	Voltage code $V_{RRM}/100$ 12-24	Fixed Code
Typical Order Code: W6262ZD200, 26mm clamp height, 2000V $V_{RRM}$			

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## QUALITY AND EVALUATION LABORATORY

Rating Report No: 96DR07 Issue 1

Date: 2nd August, 1996

Origin: Q.E.L.

Pages: 10

Diode Capsule Type : SW12-24CXC2850

Written by: M Baker

Checked: *Butcher*Approved: *B. C. H.*

This diode consists of a diffused 76 mm diameter silicon slice, reference DQHXC, mounted in a cold weld capsule.

### Ratings

Voltage Grades ) A blocking voltage derating factor	: 12 - 24
$V_{RSM}$ ) of 0.13% per deg. Celsius is applicable	: 1300 - 2500V
$V_{RRM}$ ) to this device for $T_J$ below 25°C	: 1200 - 2400V
$I_{F(AV)}$ : Single phase: 50 Hz, 180° half sinewave;	
Double Side Cooled $T_{HS} = 55^\circ\text{C}$ , $100^\circ\text{C}$	: 6268 A, 4616 A
Single Side Cooled $T_{HS} = 100^\circ\text{C}$	: 2852 A
$I_{F(rms)}$ $T_{HS} = 25^\circ\text{C}$ )	: 11327 A
) Double side cooled	
$I_F$ $T_{HS} = 25^\circ\text{C}$ )	: 9885 A
$I_{FSM}$ : t = 10ms half sinewave; $T_J$ (initial) = 175 °C $V_{RM} = 0.6V_{RRM(MAX)}$	: 67.0 kA
$I_{FSM}$ : t = 10ms half sinewave; $T_J$ (initial) = 175 °C $V_{RM} \leq 10V$	: 73.7 kA
$I_t^2$ : t = 10ms; $T_J$ (initial) = 175 °C; $V_{RM} = 0.6V_{RRM(MAX)}$	: $22.4 \times 10^6 \text{A}^2\text{s}$
$I_t^2$ : t = 10ms; $T_J$ (initial) = 175 °C; $V_{RM} \leq 10V$	: $27.2 \times 10^6 \text{A}^2\text{s}$
$I_t^2$ : t = 3ms; $T_J$ (initial) = 175 °C; $V_{RM} \leq 10V$	: $20.2 \times 10^6 \text{A}^2\text{s}$
$T_{HS}$ : Operating Range	: -40 To +175 °C
$T_{stg}$ : Non-operating	: -55 To +175 °C

-2-

Characteristics

(Maximum values unless otherwise stated)

$V_o$		: 0.74 V
$r_s$		: 0.0647 m $\Omega$
A : $T_J = 25^\circ\text{C}$		: 0.741315
B : $T_J = 25^\circ\text{C}$		: -4.783379E-4
C : $T_J = 25^\circ\text{C}$		: 1.888101E-5
D : $T_J = 25^\circ\text{C}$		: 3.638078E-3
A )		: 0.541253
B )	$V_F = A + B \cdot \ln(i_F) + C \cdot i_F + D \sqrt{i_F}$	: 2.842161E-3
C )		: 3.968936E-5
D )		: 4.131844E-3
$V_{FM}$ at $I_{FM} = 6800$ A		: 1.18 V
$R_{th(J-HS)}$ Double side cooled	) Steady-state d.c. and	: 0.011 K/W
Single side cooled	) 1 $\phi$ a.c. resistive load.	: 0.022 K/W
$I_{RRM}$ : at $V_{RRM(MAX)}$		: 150 mA
$V_{fr}$ : at $dI/dt =$		: ---
Reverse recovery at $I_{FM} =$ A; $t_p =$ $\mu\text{s}$		: ---
$di_R/dt =$ A/ $\mu\text{s}$ ; $V_{RM} =$ V		
$Q_{RR}$ (total area)		: ---
$Q_{RA}$ (50% chord)		: ---
$t_{rr}$ (50% chord)		: ---
$I_{RM}$		: ---
Mounting Force		: 27 - 47 kN (2700 - 4700 kg.f)
Outline Drawing		: 100A293
JEDEC Outline No.		: ---

NOTE: All characteristics are at  $T_{VJ} = T_{Jmax}$  operating unless stated otherwise.

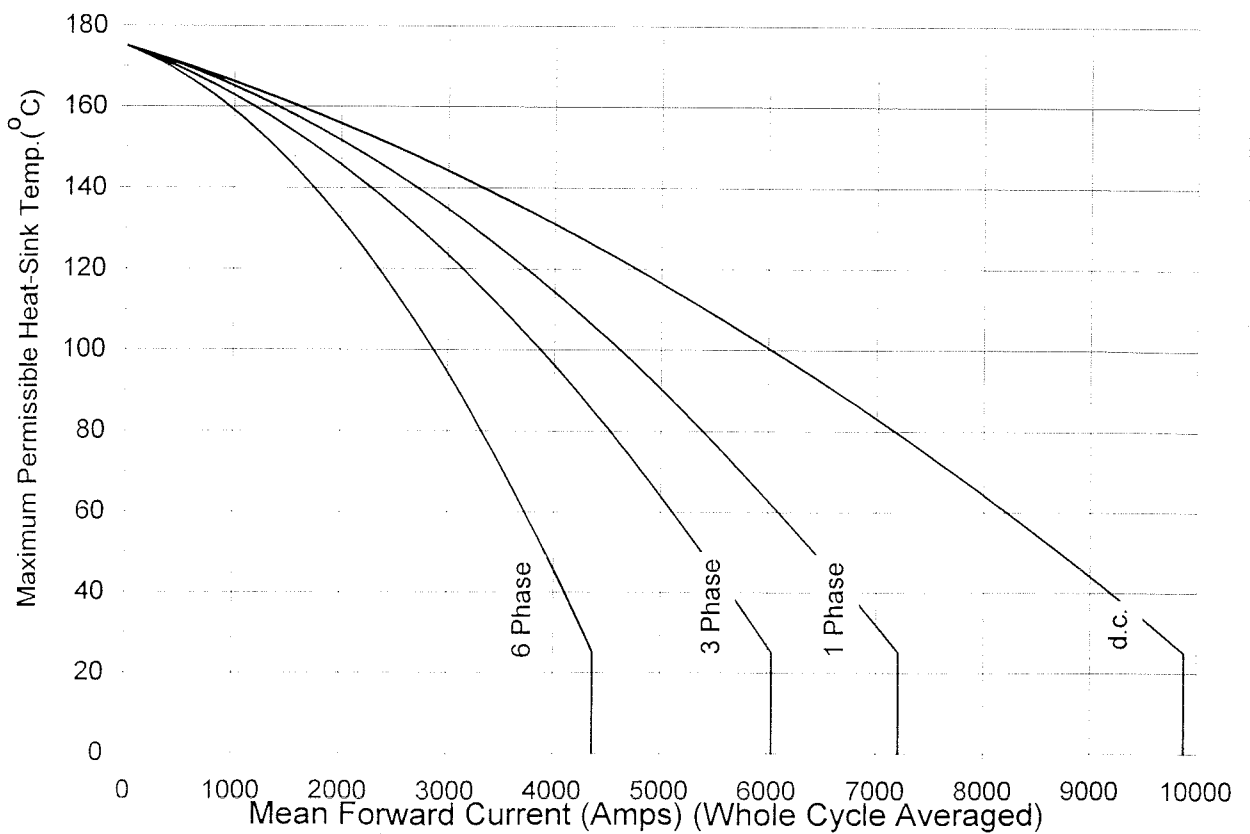
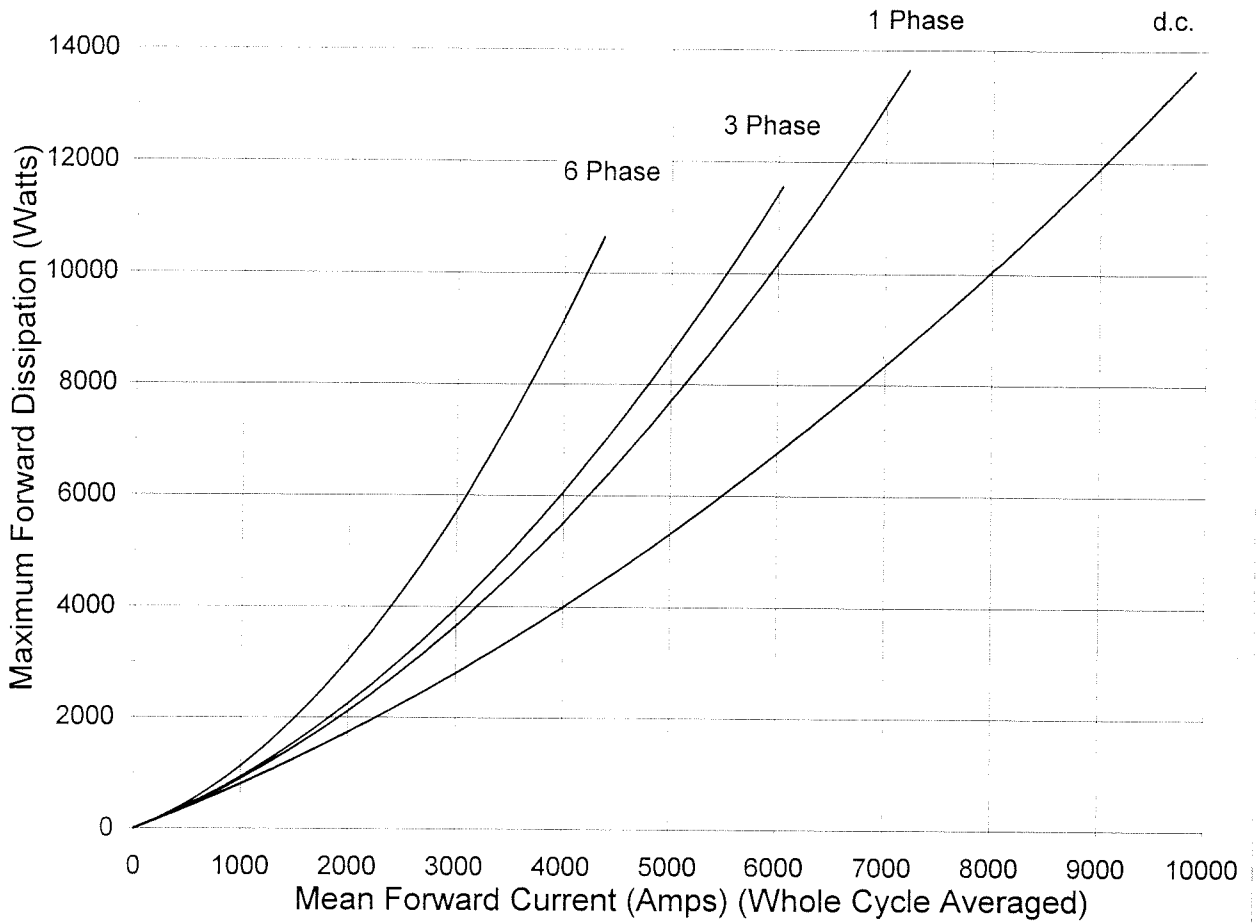
<u>CONTENTS</u>	<u>Page</u>
Ratings	1
Characteristics	2
Contents	3
Voltage Ratings	4
Dissipation and Heatsink Temperature vs Mean Current	5 & 6
Limit Forward Voltage Characteristic	7
Transient Thermal Impedance Characteristic	8
Surge Current and $I^2t$ vs Duration of Surge	9
Outline Drawing	10

Voltage Ratings

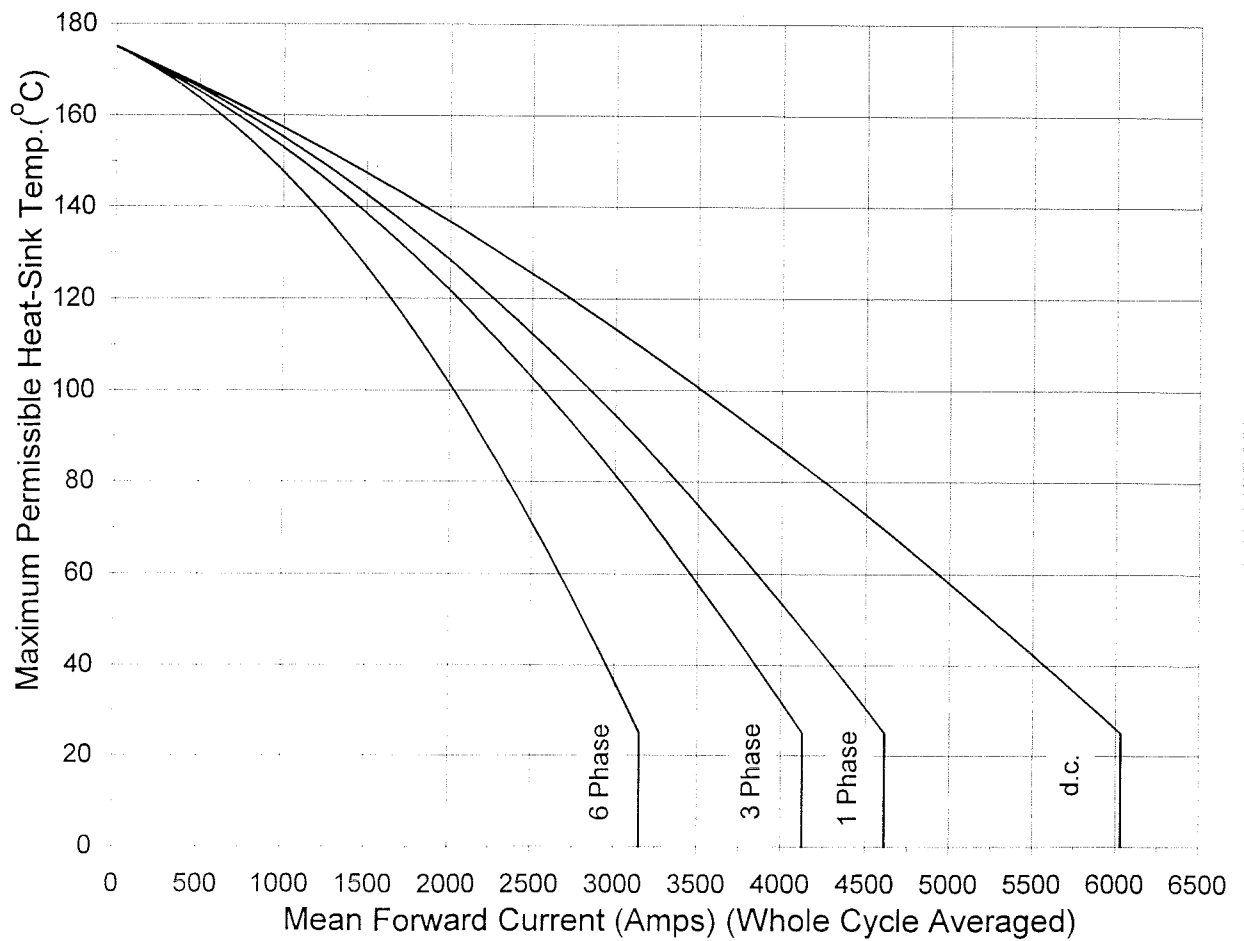
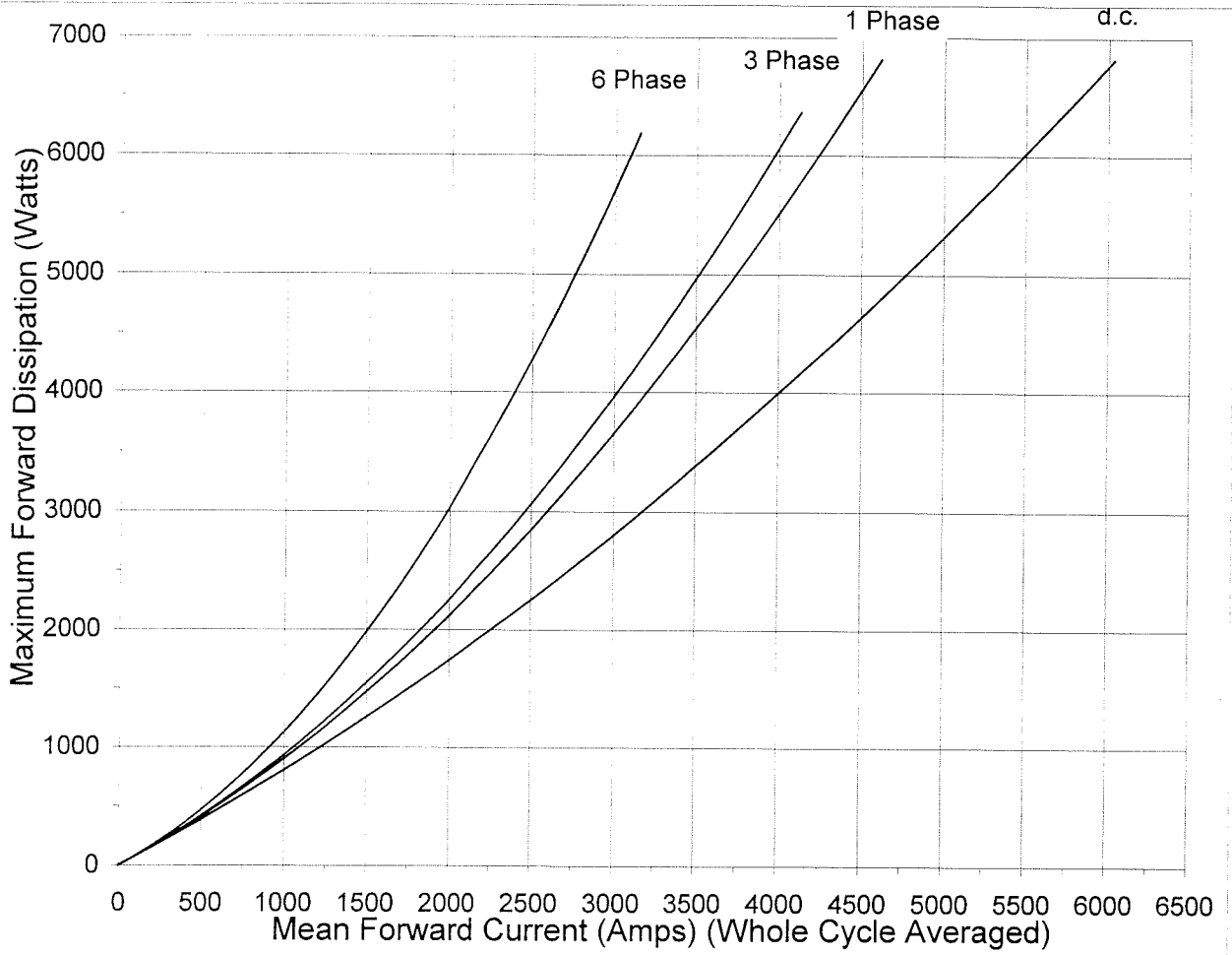
Voltage Class	$V_{RRM}$ V	$V_{RSM}$ V
12	1200	1300
14	1400	1500
16	1600	1700
18	1800	1900
20	2000	2100
22	2200	2300
24	2400	2500

1. 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.

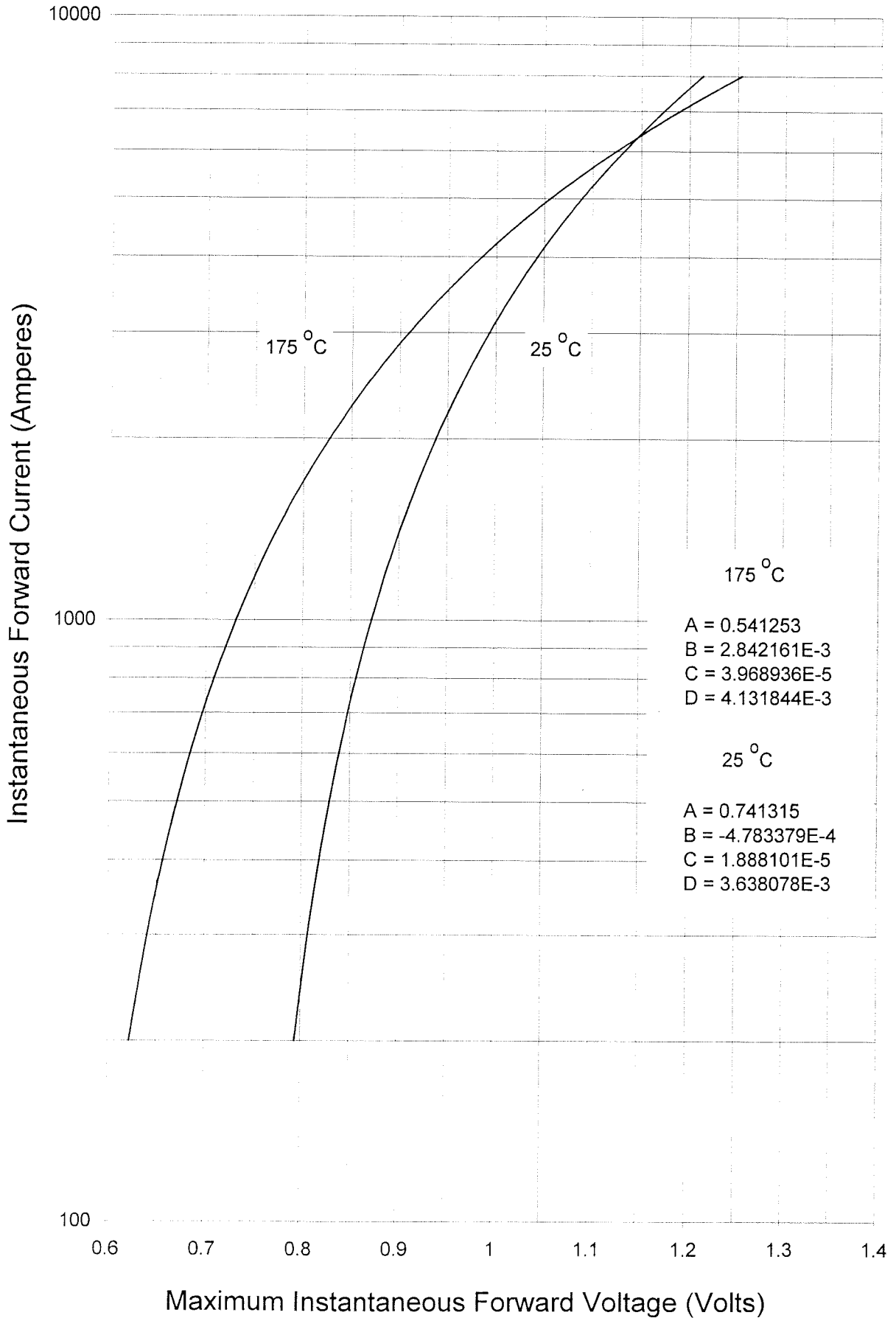
### Double Side Cooled



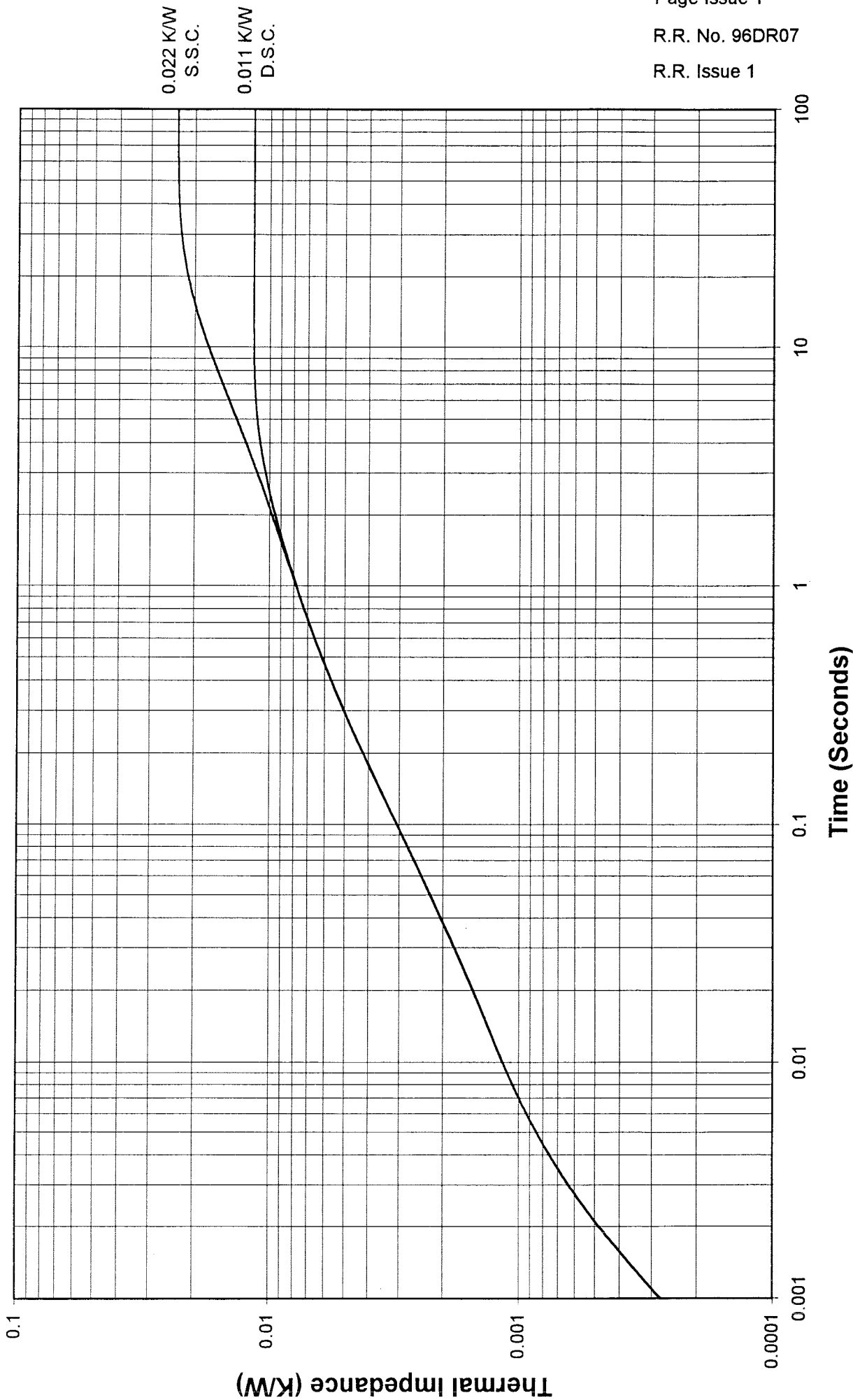
### Single Side Cooled



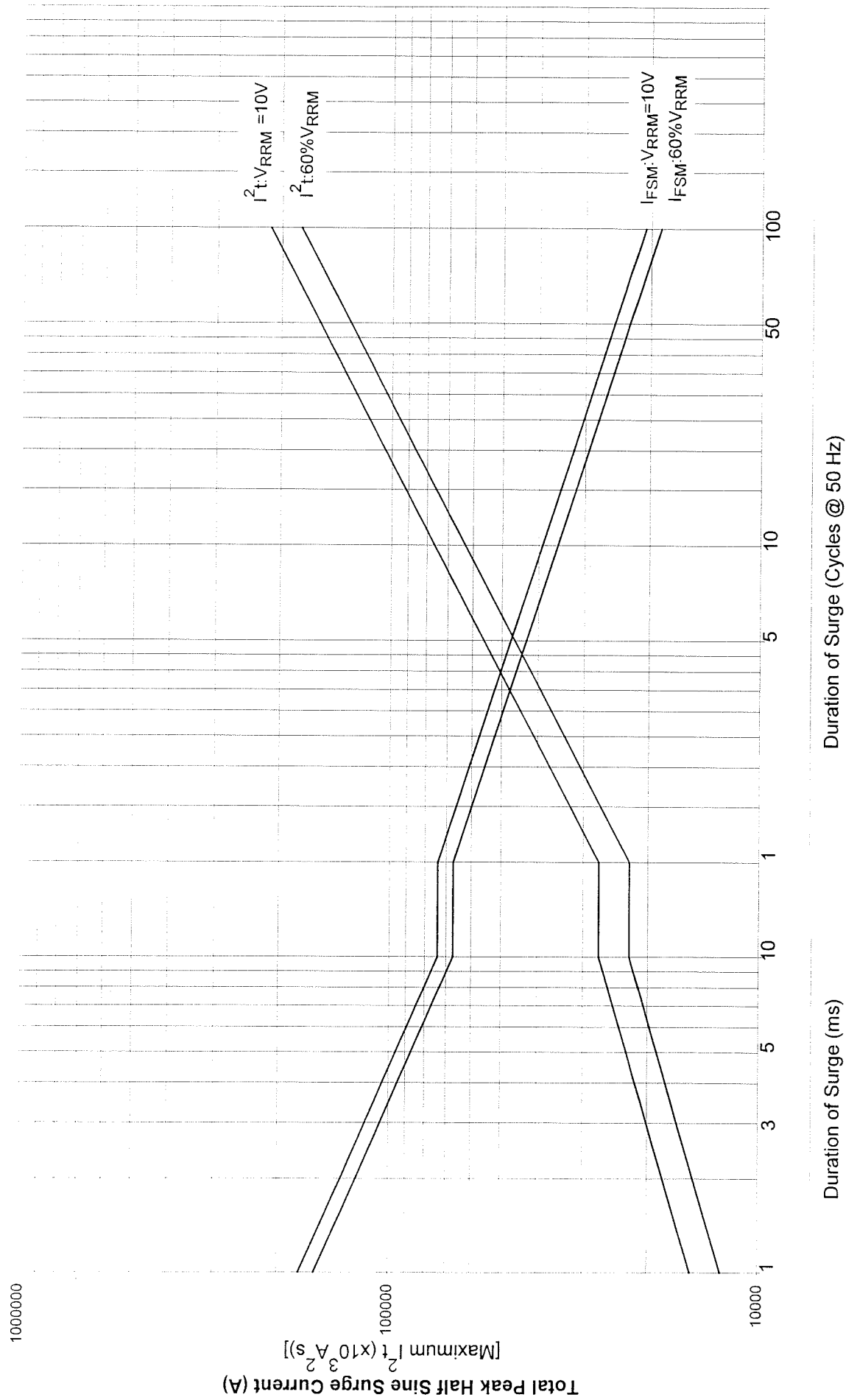
### Forward Characteristic of Limit Device



# Transient Thermal Impedance (Junction to Heat Sink)



Maximum Non-Repetitive Surge Current  
 @ Initial Junction Temperature 175 °C



INTERNATIONAL OUTLINE No.

G.A. DWG No. 159B100H601

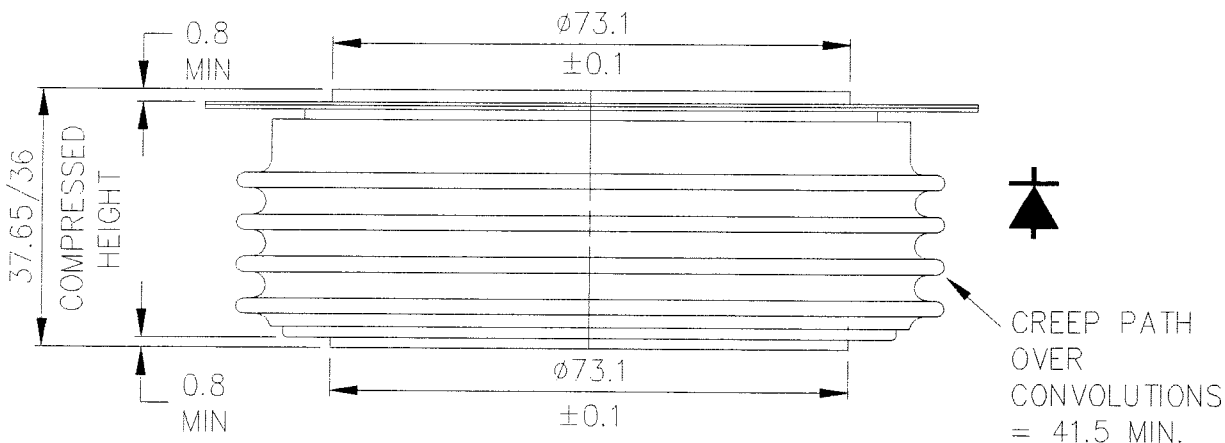
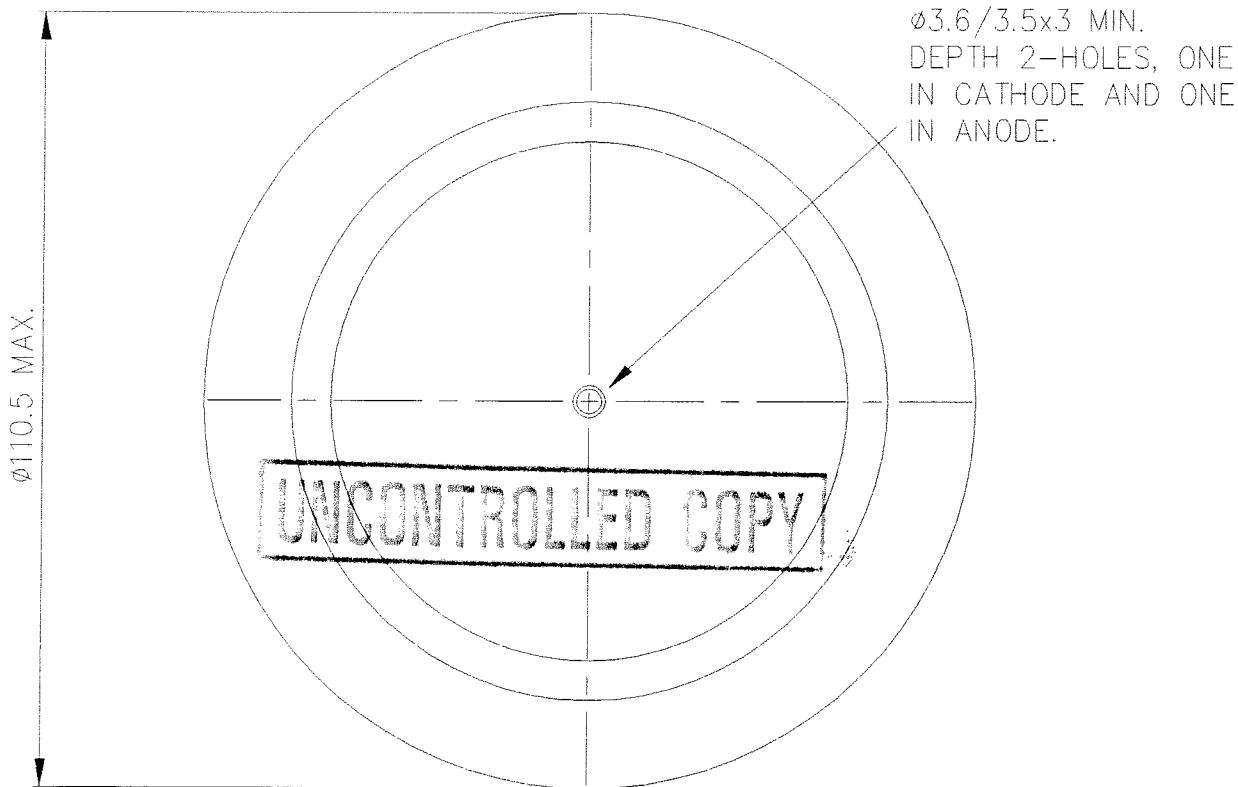
-10-

WEIGHT. 1.7kg

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 =  $3700 \pm 1000$ kgf. ( $37 \pm 10$ kN)

CXC974 CXC32C  
CXC15C CXC2850  
CXC18C  
CXC20C  
CXC21C  
CXC26C  
CXC30C



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SCALE 1/1	ISS REVISIONS	13-09-90
DRAWN HDN	REDRAWN ON	CAD HDN
DIST: A		
5	M1644. TYPE No.	
	CXC26C ADDED	
60	11-4-91 HDN	
	M2312	
	CXC18C ADDED.	
70	HN	
	11-1-94. M2408.	
	CXC974 ADDED.	
8E	HN	
	25-7-96. M3035.	
	CXC2850 ADDED.	
	B.B.B.	

THIRD ANGLE PROJECTION.
DWG. COMPLIES WITH BS 308.
DIMNS. IN MILLIMETRES.
DWG No.
100A293



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