Rectifier Diode
W0614WC160 to W0614WC240

The data sheet on the subsequent pages of this document is a scanned copy of existing data for this product.
(Rating Report 80NR7 Issue 2)

This data reflects the old part number for this product which is: SW16-24CXC320. This part number must **NOT** be used for ordering purposes – please use the ordering particulars detailed below.

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

W0614	WC	♦♦	**0**
Fixed Type Code	Fixed Outline Code	Voltage code V_{DRM}/100 16-24	Fixed Code

Typical Order Code: W0614WC220, 14mm clamp height, 2200V V_{RRM}

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QUALITY EVALUATION LABORATORY

Rating Report: 80NR7 (Issue 2) **Date:** 15th January, 1987

Origin: **Pages:** 10

Diode Type SW16-24CXC320

Written by: M.W. Dunlop Checked: M.W.J. Approved: B.E.H.

This diode consists of a diffused 24 mm diameter silicon slice mounted in a cold weld capsule housing.
This Report supersedes Rating Report No. 80NR7 (Issue 1)

Ratings

Voltage Grades	: 16-24
V_{RSM}	: 1700-2500V
V_{RRM}	: 1600-2400V
$I_{F(AV)}$: Single phase; 50 Hz, 180° half sinewave; (Converter Ratings)	:
Double Side Cooled T_{HSE} = 55°C, 100°C	: 614A; 458A
Single Side Cooled T_{HS} = 100°C	: 280A
$I_{F(rms)}$ T_{HS} = 25°C)	: 1100A
I_F T_{HS} = 25°C) Double side cooled	: 960A
I_{FSM} : t = 10ms half sinewave; T_J (initial) = 180°C ; V_{RM} = 0.6$V_{RRM(MAX)}$	: 4000A
I_{FSM} : t = 10ms half sinewave; T_J (initial) = 180°C ; $V_{RM} \leqslant 10V$	: 4400A
I^2t : t = 10ms; T_J (initial = 180°C ; V_{RM} = 0.6V_{RRM} (MAX)	: 80 x $10^3 A^2S$
I^2t : t = 10ms; T_J (initial) = 180°C ; $V_{RM} \leqslant 10V$	: 96.8 x $10^3 A^2S$
I^2t : t = 3ms; T_J (initial = 180°C ; $V_{RM} \leqslant 10V$	: 71.6 x $10^3 A^2S$
T_{HS} Operating Ramge	: -40 to +180°C
T_{stg}; Non-operating	: -40 to +200°C

Characteristics

(Maximum values unless stated otherwise)

V_O : T_J = 180°C	: 1.0
r_s : T_J = 180°C	: 0.83mohms
V_{FM} : I_{FM} = 1440A T_{VJ} = 180°C	: 2.2V
R_{th}(J-HS) Double side cooled	: 0.09°C/W
Single side cooled	: 0.18°C/W
I_{RRM} : T_J = 180°C V_{RM} = $V_{RRM(MAX)}$	: 15mA
Q_{rr} : I_{FM} = ; dI/dt = (50% chord value)	:
V_{RM} = T_{VJ} =	:
t_{rr} (conditions as above)	:
Mounting Force	: 330-550Kg.f
Outline Drawing	: 100A241
JEDEC Outline No.	: DO200AA

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Changes to 80NR7 (Issue 1)

p1 V_{RWM} omitted

T_{HS} (Operating range) MIN reduced to -40°C

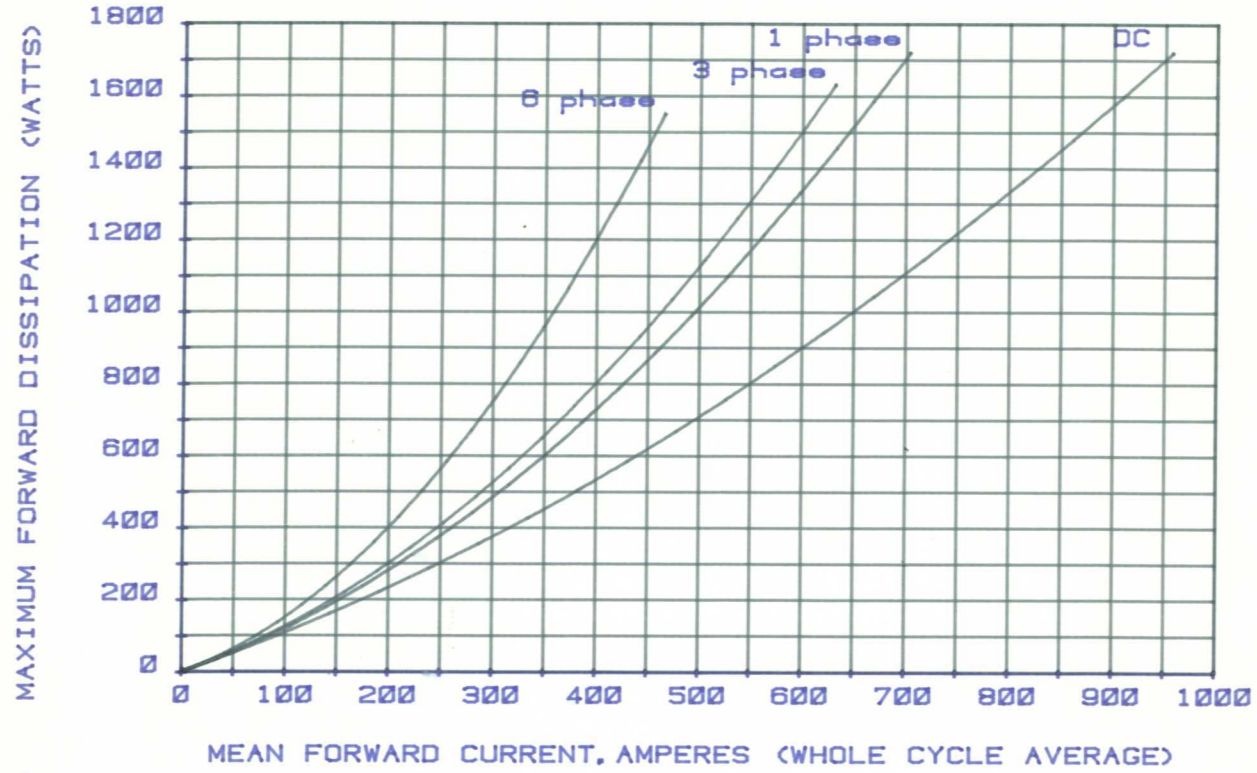
p7 $I_F - V_F$ and Z_{th} v t curves drawn on separate sheets

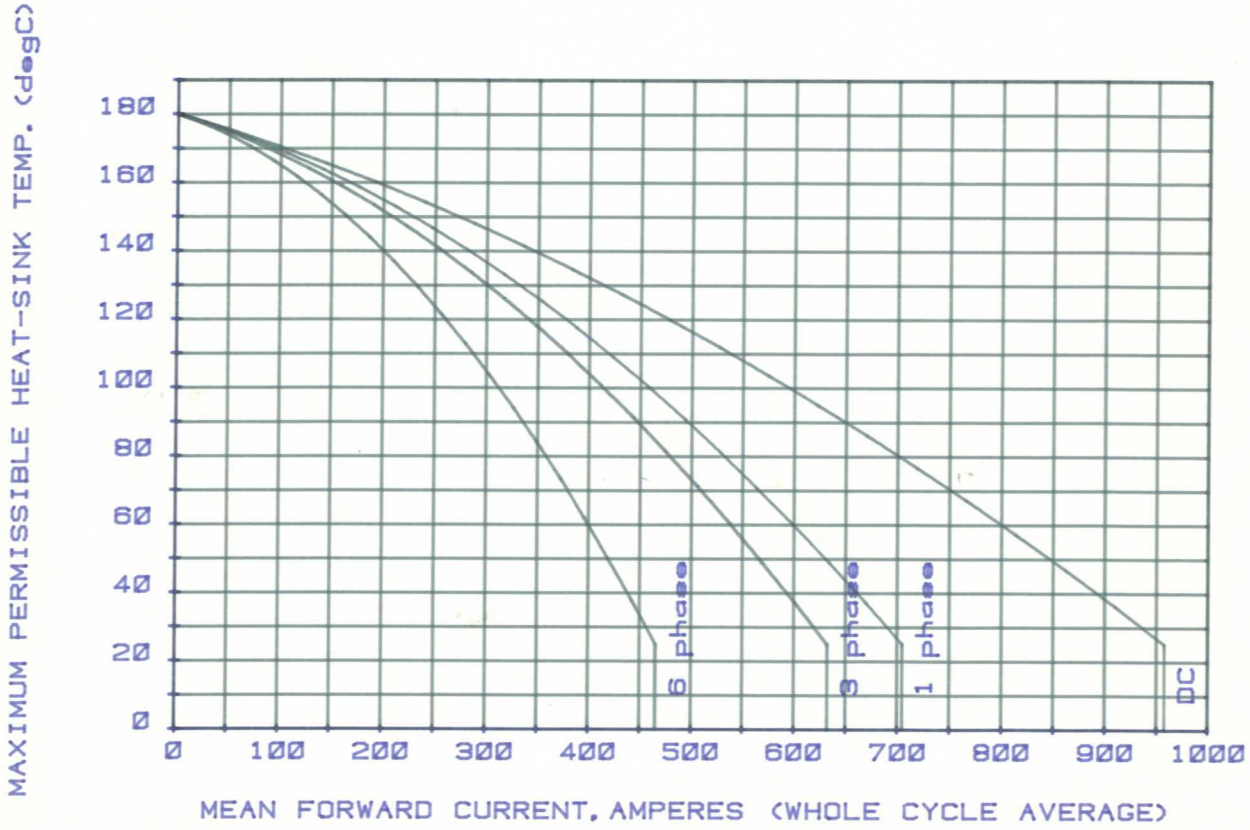
Voltage Ratings

Voltage Class	V_{RRM} V	V_{RSM} V
16	1600	1700
18	1800	1900
20	2000	2100
22	2200	2300
24	2400	2500

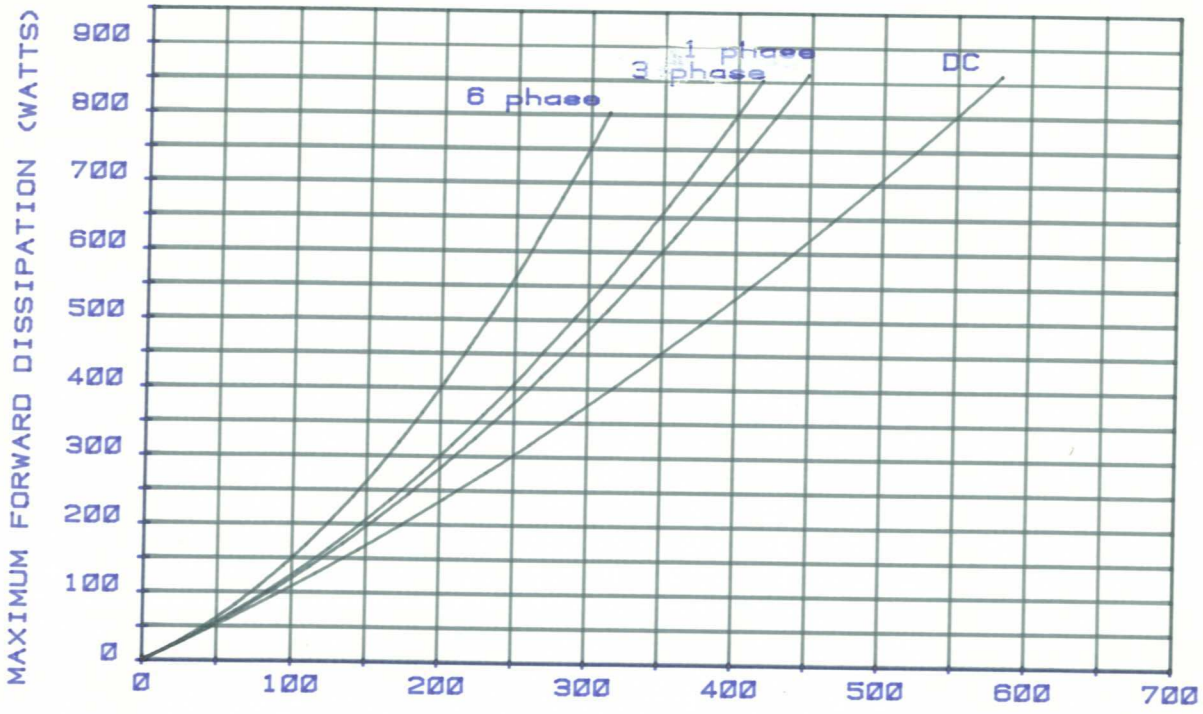
This Report is applicable to higher or lower voltage grades when supply has been agreed by Sales/Production.

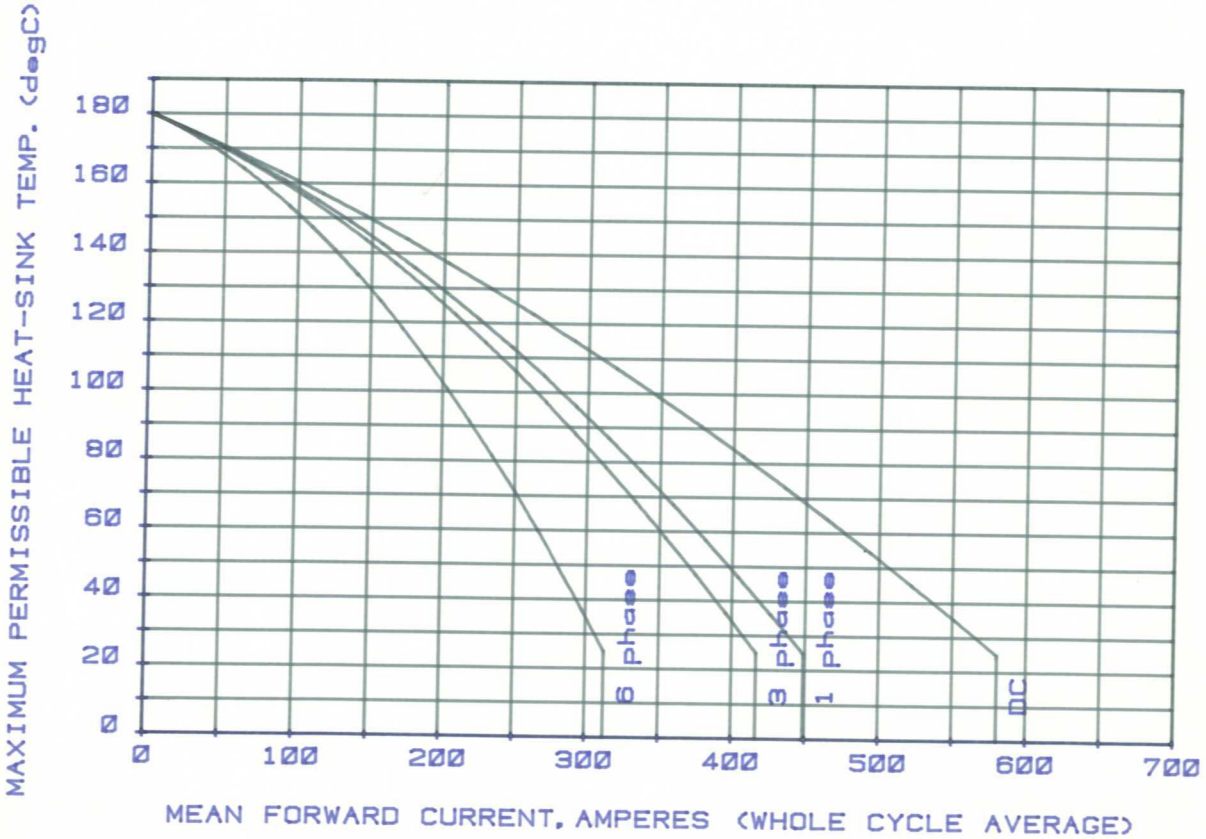
DOUBLE SIDE COOLED

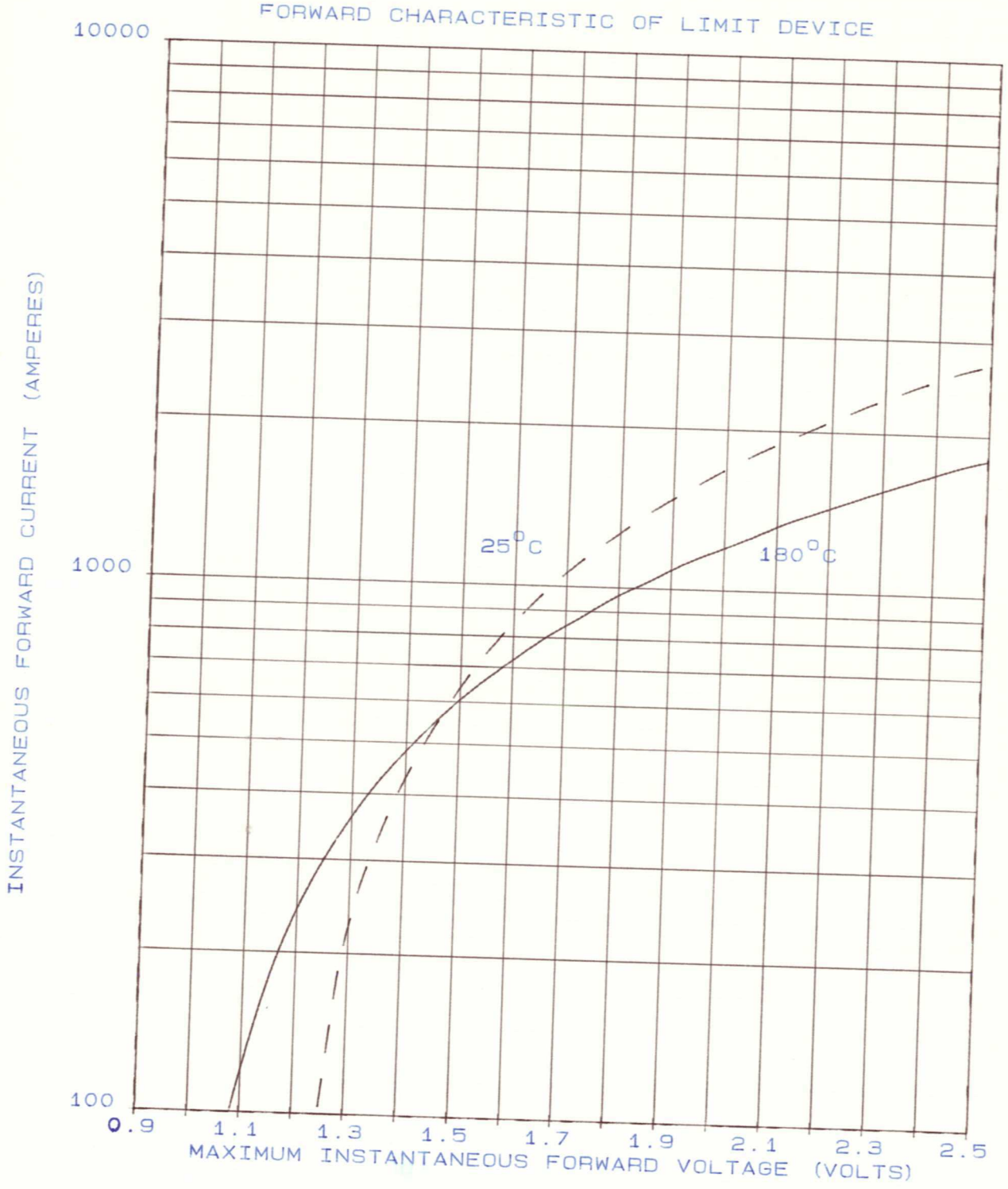


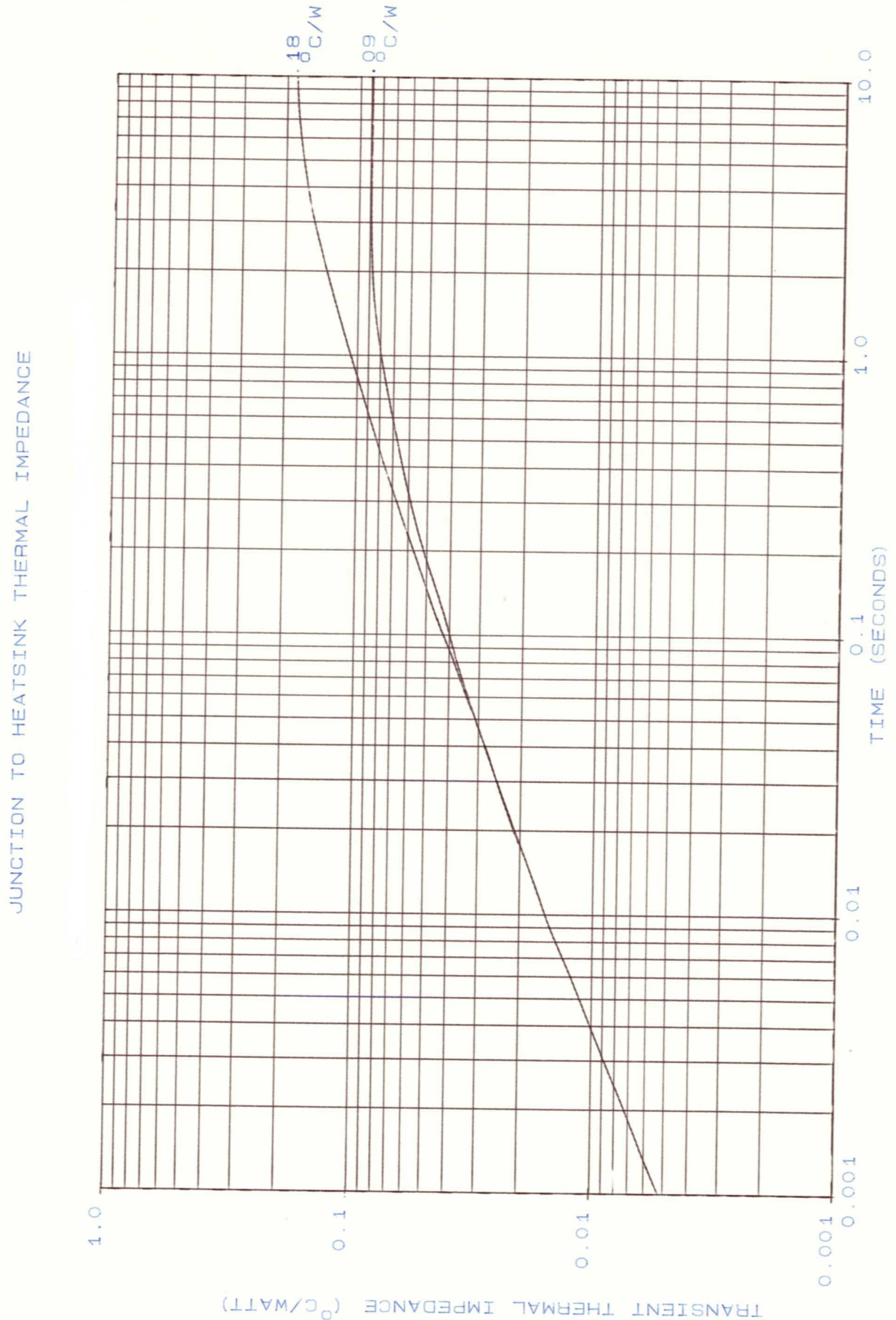


SINGLE SIDE COOLED

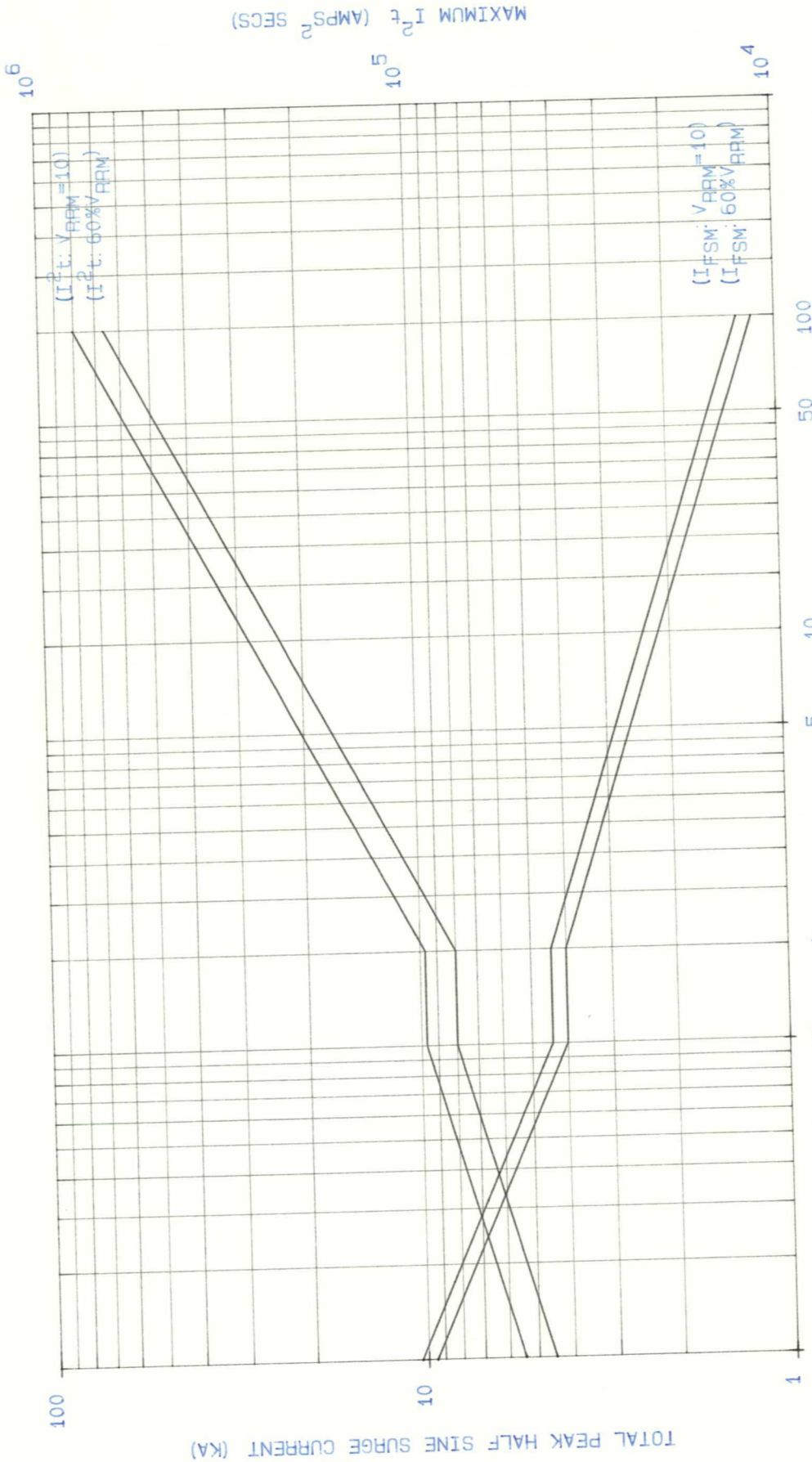





FORWARD CHARACTERISTIC OF LIMIT DEVICE
10000
1000
100
INSTANTANEOUS FORWARD CURRENT (AMPERES)
25°C
180°C
0.9
1.1
1.3
1.5
1.7
1.9
2.1
2.3
2.5
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE (VOLTS)


JUNCTION TO HEATSINK THERMAL IMPEDANCE
.18 °C/W
.09 °C/W
1.0
0.1
0.01
0.001
0.001
0.01
0.1
1.0
10.0
TIME (SECONDS)
TRANSIENT THERMAL IMPEDANCE (°C/WATT)

MAXIMUM NON REPETITIVE SURGE CURRENT AT INITIAL JUNCTION TEMPERATURE 180°C

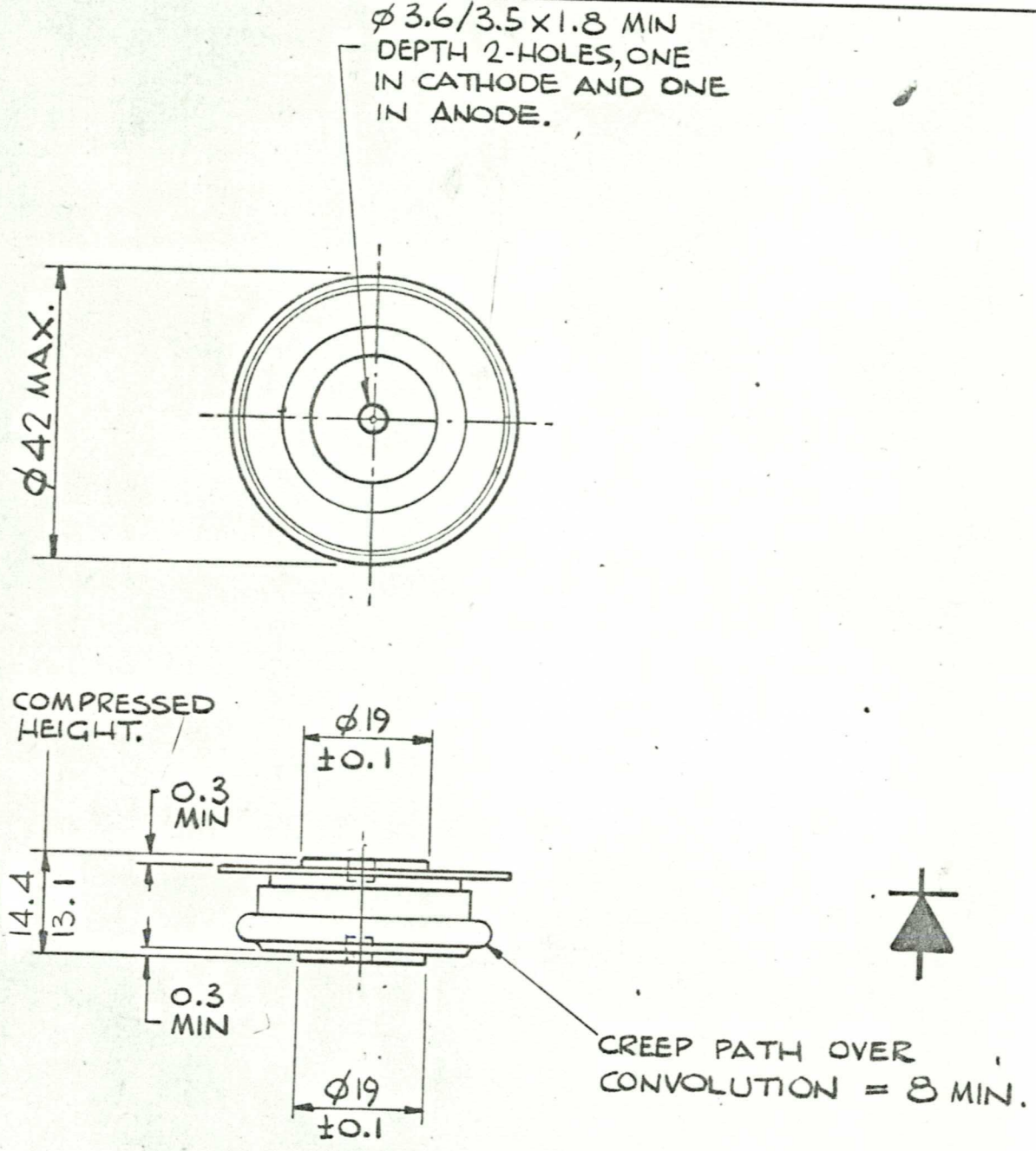


SCALE	1/1
DRN	
CHKD	
APPD	
	A
S	NI

INTERNATIONAL OUTLINE No. DO-200AA.
WEIGHT. 70 GRAMS.
FINISH. NICKEL PLATE. - 10 -
DEVICE MARKING INCLUDES MONOGRAM, TYPE No., SPEC. No. AND POLARITY SYMBOL.
DEVICE MOUNTING: CLAMPING FORCE TO BE APPLIED ON ℄ 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 - 550 kgf.

TYPE NUMBER	
CXC300	CXC170
CXC320	CXC174
CXC380	
CXC400	

G.A. DRG. No. 159B100H100-H110. 102B213.



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

WESTCODE ® SEMICONDUCTORS

THIRD ANGLE PROJECTION

DIMNS. IN MILLIMETRES

DRG. No. 100A241

ISS	REVISIONS
1	10.9.76 PIIB
2	REDRAWN. 15.2/14 WAS 15.2/12.5. ϕ19 WAS ϕ29. P304 18.5.78
3	CLAMPING FORCE WAS 500-1200 kgf. 7.9.78
4	11.9.78 ϕ42 WAS ϕ43 14.35/13.08 WAS 15.2/14. CLAMP FORCE WAS 400-700 kgf
5	19.9.78 14.4/13.1 WAS 14.35/13.08
6	30.10.78 M670 TYPE Nº ADDED
7	17.9.79 M773 550 kgf WAS 700 kgf.

5355E OZALID (U.K.) LTD