Rectifier Diode
W0797WC040 to W0797WC150

The data sheet on the subsequent pages of this document is a scanned copy of existing data for this product.
(Rating Report 87NR3 Issue 1)

This data reflects the old part number for this product which is: SW02-15CXC400. 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:
Device no longer available for grade 02 (200V V_{RRM}/V_{DRM})
No reverse recovery information available

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.

Ordering Particulars

W0797	WC	♦♦	**0**
Fixed Type Code	Fixed Outline Code	Voltage code $V_{DRM}/100$ 04-15	Fixed Code
Typical Order Code: W0797WC060, 14mm clamp height, 600V V_{RRM}			

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QUALITY EVALUATION LABORATORY

Rating Report: 87NR3 — Date: 25th March, 1987

Pages: 10

Diode Type SW02-15CXC400

Written by: *[signature]* Checked: *[signature]* Approved: *[signature]*

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

This report supersedes Rating Report No. 79NR11.

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°C, 100°C	: 800A, 614A
Single side cooled T_{HS} = 100°C	: 380A
I_F (rms) max.) Double side cooled T_{HS} = 25°C	: 1420A
I_F max.)	: 1240A
I_{FSM} : t = 10ms half sinewave; T_J (initial) = 190°C; V_{RM} = 0.6 V_{RRM}(Max)	: 7500A
I_{FSM} ; t = 10ms half sinewave; T_J (initial = 190°C; $V_{RM} \leq$ 10V	: 8250A
I^2t : t = 10ms; T_J (initial) = 190°C; V_{RM} = 0.6 V_{RRM}(Max)	: 0.281 x $10^6 A^2$SECS
I^2t : t = 10ms; T_J (initial) = 190°C; $V_{RM} \leq$ 10V	: 0.34 x $10^6 A^2$SECS
I^2t : t = 3ms; T_J (initial) = 190°C; $V_{RM} \leq$ 10V	: 0.245 x $10^6 A^2$SECS
T_{HS} Operating range	: -40 to +190°C
T_{stg}; Non-operating	: -40 to +200°C

Characteristics

(Maximum values unless stated otherwise)

V_O : T_J = 190°C			: 0.8V
r_s : T_J = 190°C			: 0.548mohms
V_{FM} : I_{FM} = 1930A	T_{VJ} = 190°C		: 1.86V
R_{th}(J-HS) Double side cooled			: 0.09°C/W
Single side cooled			: 0.18°C/W
I_{RRM} : T_J = 190°C	V_{RM} = $V_{RRM(Max)}$		: 15mA
Q_{rr} : I_{TM} = 1000	dI/dt = 10A/uS.	Defined by chord through 50% I_{RM}	: 500uC Typical
V_{RM} = 50V	T_{VJ} = 190°C		:
Mounting Force			: 330-550Kgf
Outline drawing			: 100A241
Jedec Outline No.			: DO200AA

CONTENTS

Changes to Rating Report No. 79NR11

P1 : V_{RWM} omitted

T_{HS} (MIN) reduced to -40°C

P2 : JEDEC outline No. added

P4 : V_{RWM} omitted

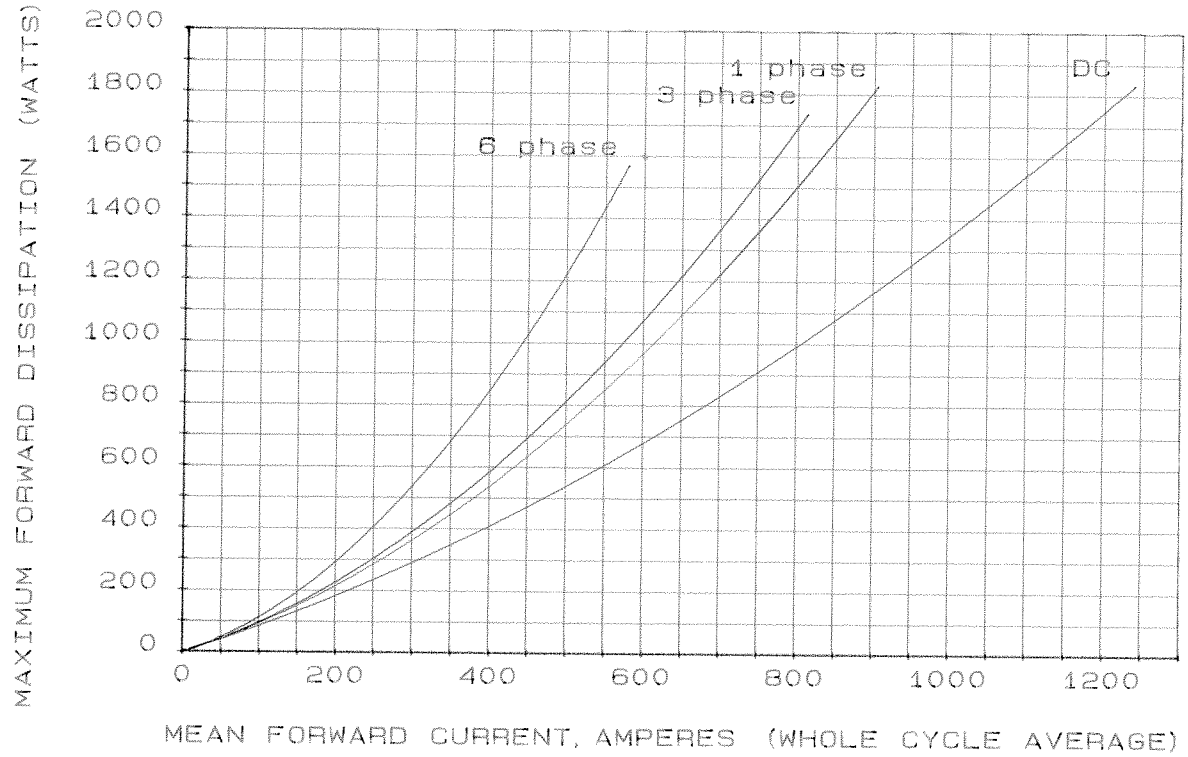
P5-8 : Redrawn

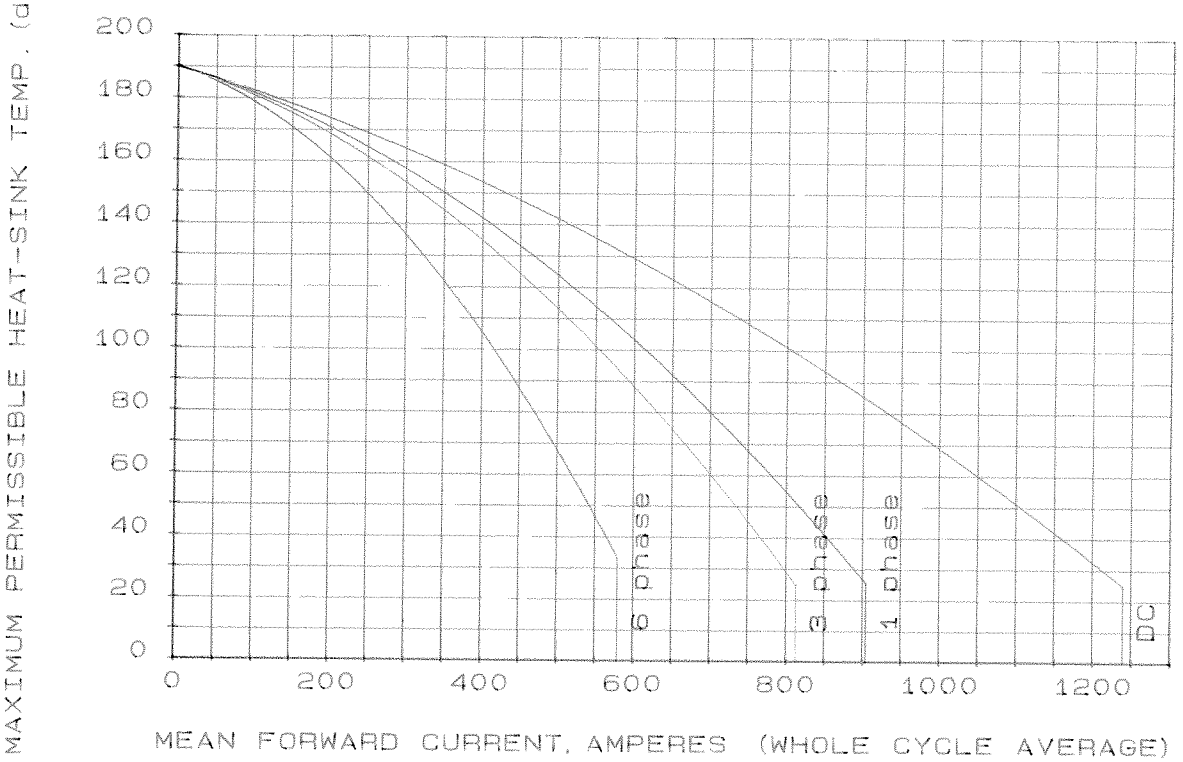
Voltage Ratings

Voltage Class SW	V_{RRM}	V_{RSM} V
02	200	300
04	400	500
06	600	700
08	800	900
10	1000	1100
12	1200	1300
14	1400	1500
15	1500	1600

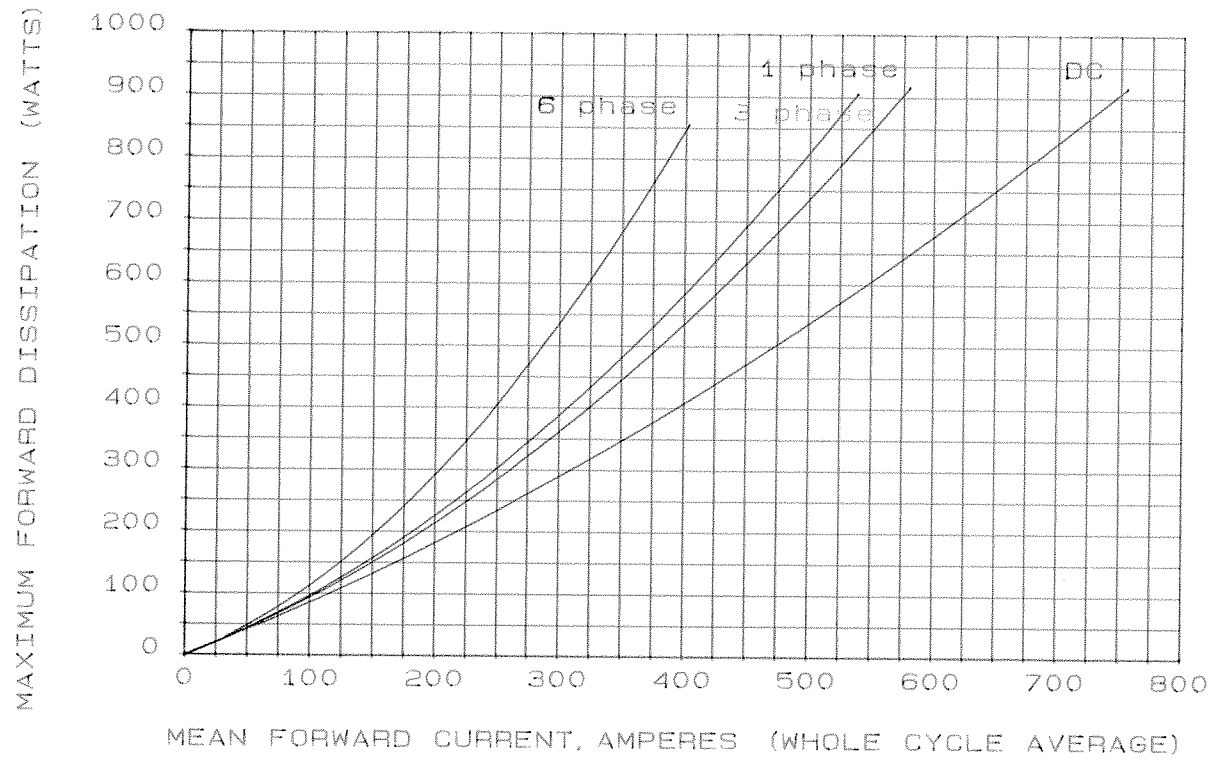
This report is applicable to higher or lower voltage grades when supply has been agreed by Sales/Production.

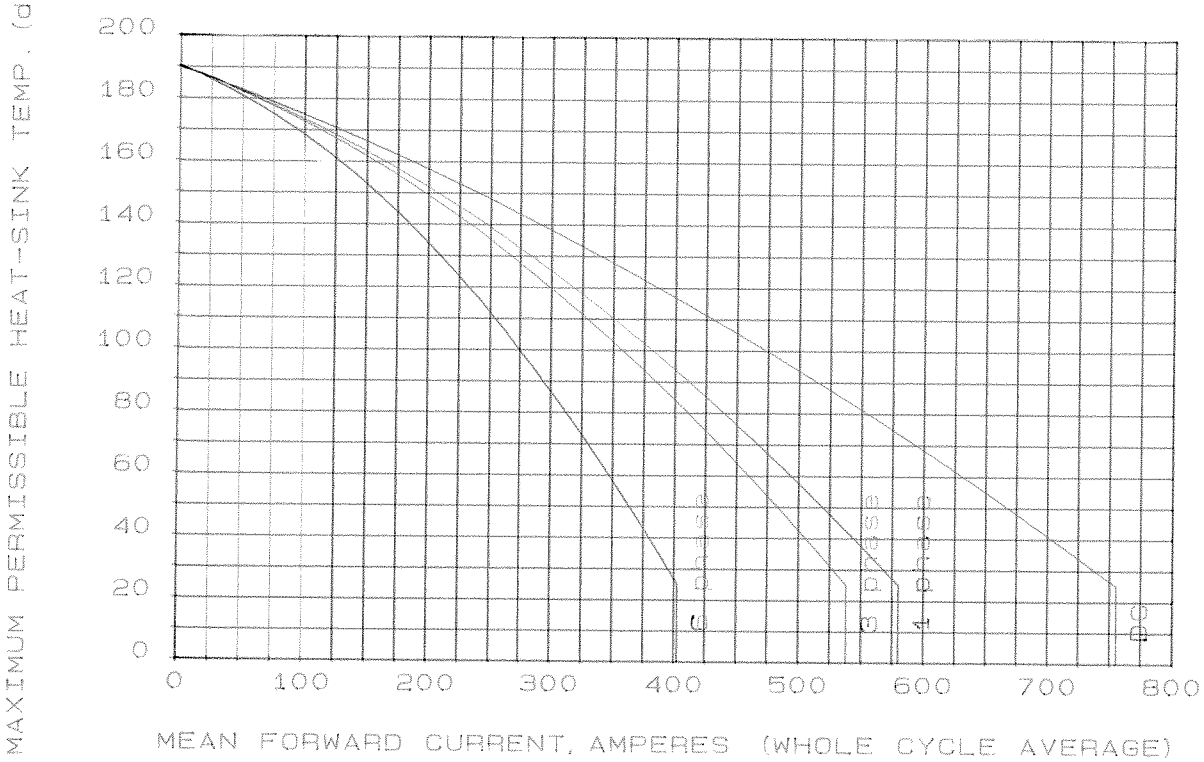
DOUBLE SIDE COOLED

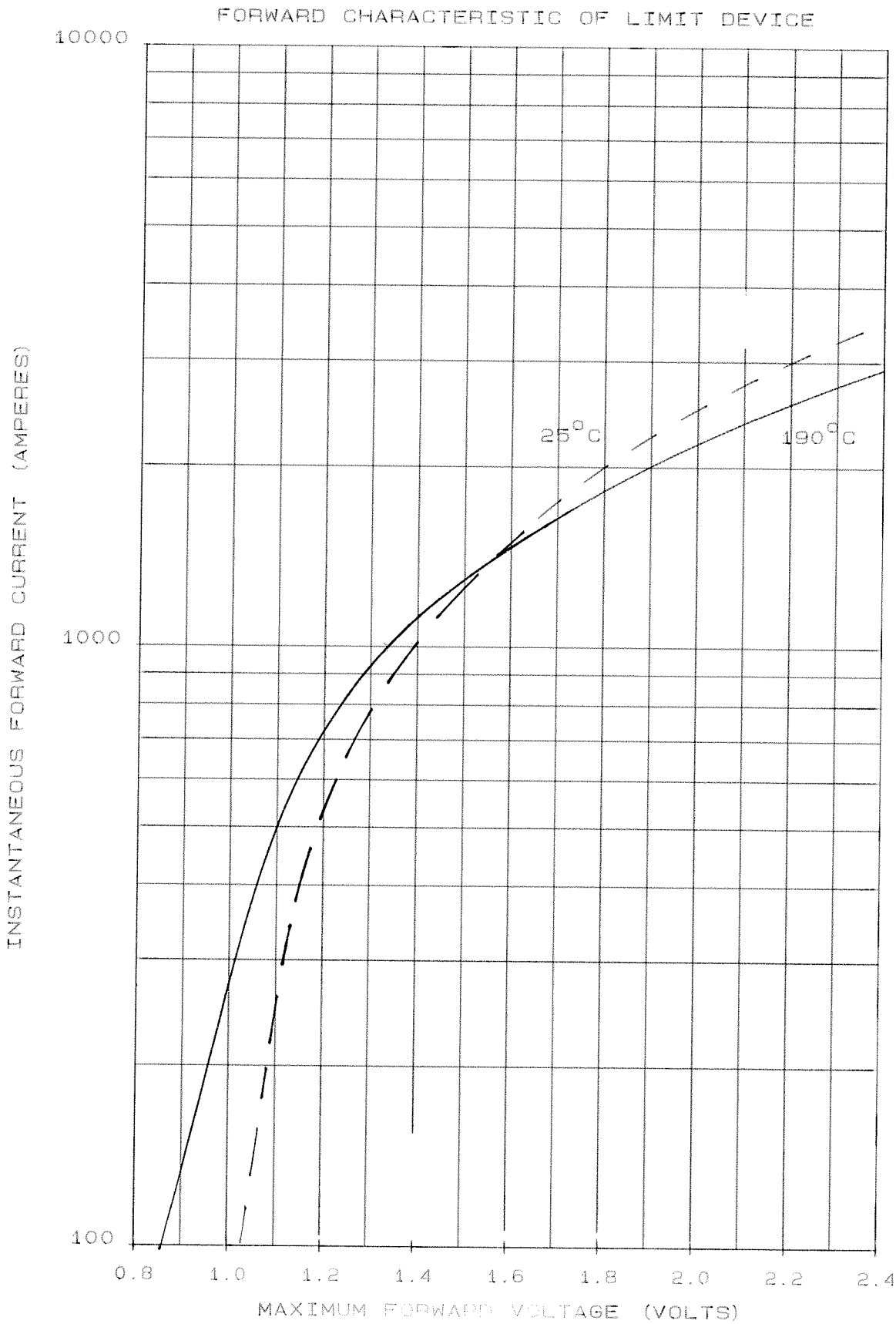


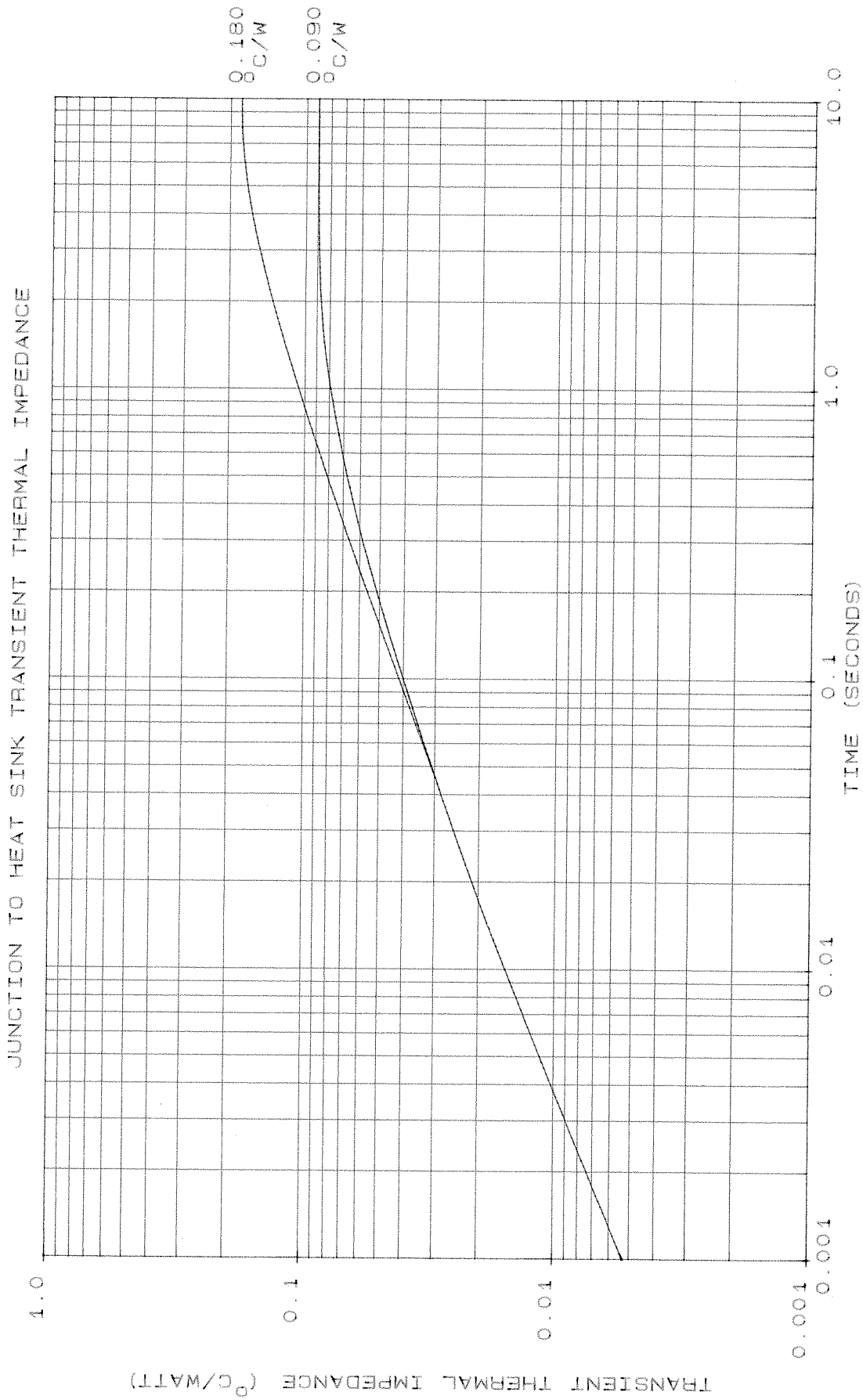


SINGLE SIDE COOLED

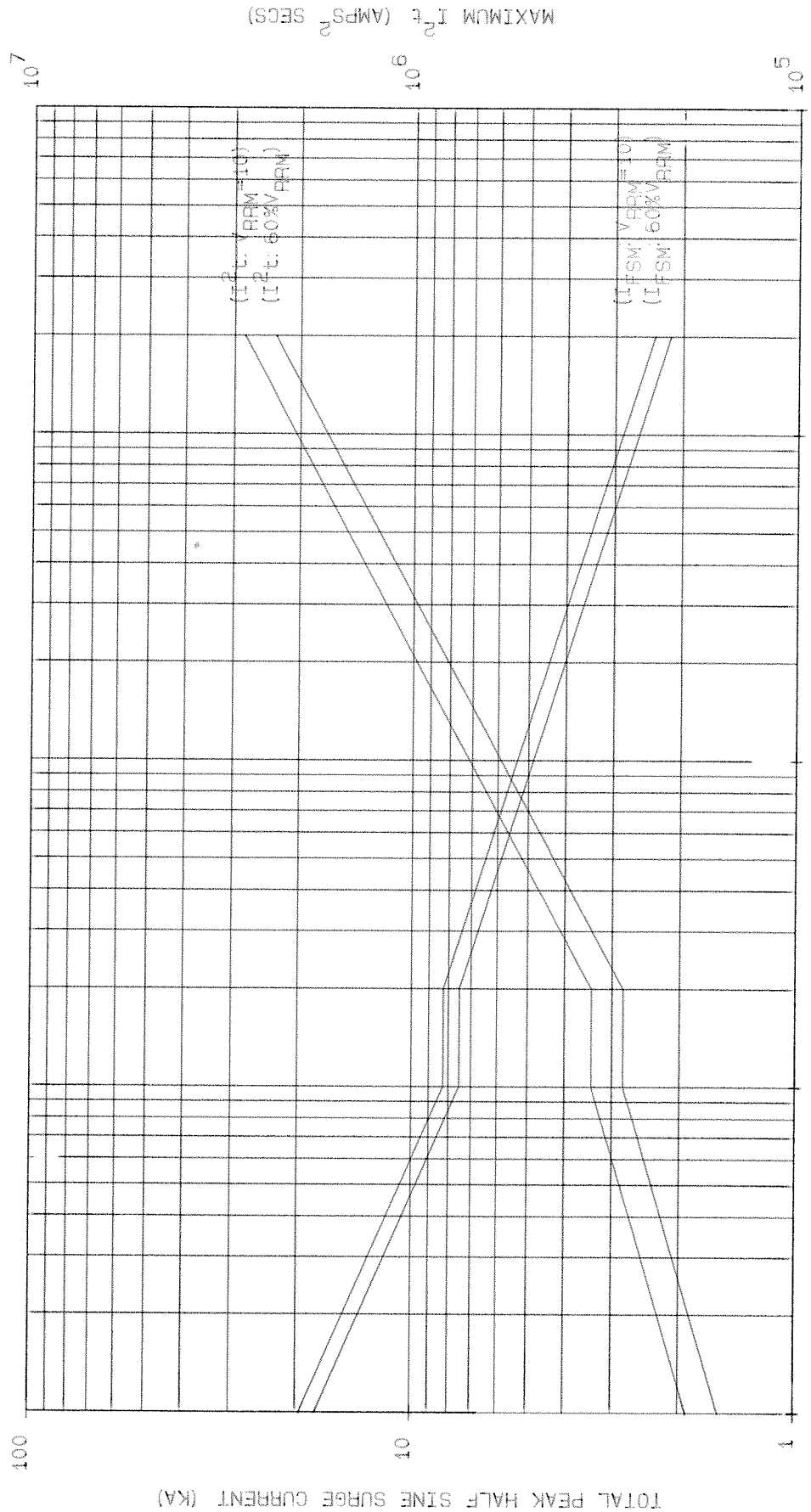





FORWARD CHARACTERISTIC OF LIMIT DEVICE
10000
1000
100
INSTANTANEOUS FORWARD CURRENT (AMPERES)
25°C
190°C
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
MAXIMUM FORWARD VOLTAGE (VOLTS)


JUNCTION TO HEAT SINK TRANSIENT THERMAL IMPEDANCE
0.180 °C/W
0.090 °C/W
TRANSIENT THERMAL IMPEDANCE (°C/WATT)
1.0
0.1
0.01
0.001
0.001
0.01
0.1
1.0
10.0
TIME (SECONDS)

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

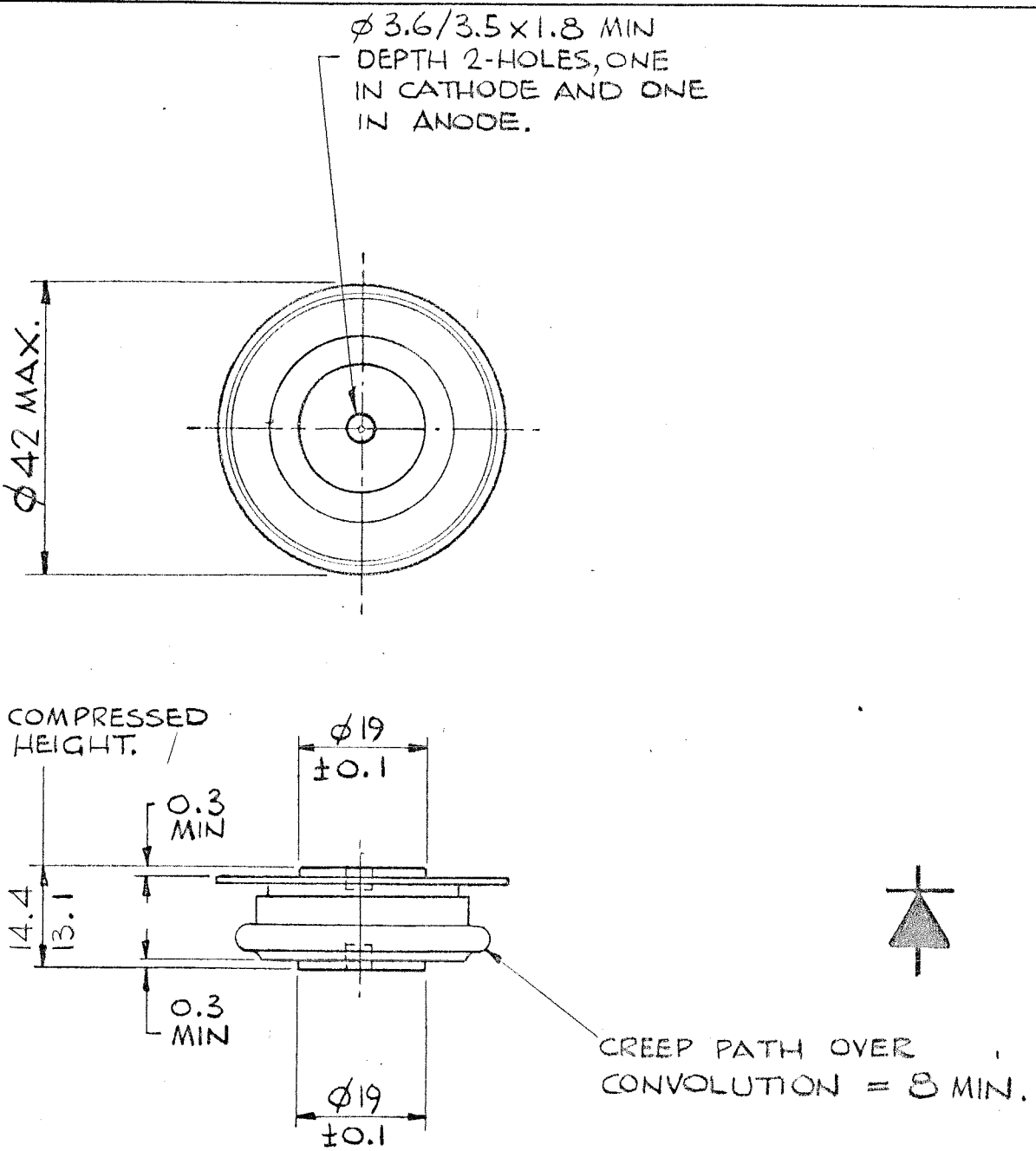


SCALE	1/1
DRN	
CHKD	
APPD	
A	
S	NI

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 - 550kgf.

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 P118
2	REDRAWN. 15.2/14 WAS 15.2/12.5. ø19 WAS ø29. P304 18.5.78
3	CLAMPING FORCE WAS 500-1200 kgf. 7.9.78
4	11.9.78 ø42 WAS ø43 14.35/13.08 WAS 15.2/14. CLAMP FORCE WAS 400-700kgf
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 550kgf WAS 700 kgf.