Rectifier Diode
W1524LC240 to W1524LC300

The data sheet on the subsequent pages of this document is a scanned copy of existing data for this product.
(Rating Report 87NR8 Issue 1)

This data reflects the old part number for this product which is: SW24-30CXC635. 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

Please use the following link to view an up to date outline drawing for this device
Outline W4

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			
W1524	LC	♦♦	**0**
Fixed Type Code	Fixed Outline Code	Voltage code V_{DRM}/100 24-30	Fixed Code
Typical Order Code: W1524LC260, 27mm clamp height, 2600V V_{RRM}			

QUALITY EVALUATION LABORATORY

Rating Report: 87NR8 Date: 11th June, 1987

Pages: 10

Diode Type SW24-30CXC635

Written by: M.W. Dunlop Checked: MWD Approved: B.L.W.H.

This diode consists of an all-diffused 38 mm diameter silicon slice mounted in a cold weld capsule housing. This report supersedes Rating Report No. 78NR13.

Ratings

Voltage Grades	: 24-30
V_{RSM}	: 2500-3100V
V_{RRM}	: 2400-3000V
$I_{F(AV)}$: Single Phase; 50 Hz, 180° half sinewave;	
Double side cooled T_{HS} = 55°C, 100°C	: 1525A; 1060A
Single side cooled T_{HS} = 100°C	: 661A
I_F (rms) max.)) Double side cooled T_{HS} = 25°C	: 2803A
I_F max.)	: 2458A
I_{FSM} : t = 10ms half sinewave; T_J (initial) = 160°C; V_{RM} = 0.6 V_{RRM}(Max)	: 12,700A
I_{FSM} ; t = 10ms half sinewave; T_J (initial = 160°C; $V_{RM} \leqslant$ 10V	: 14,600A
I^2t : t = 10ms; T_J (initial) = 160°C; V_{RM} = 0.6 V_{RRM}(Max)	: 0.81 x $10^6 A^2$SECS
I^2t : t = 10ms; T_J (initial) = 160°C; $V_{RM} \leqslant$ 10V	: 1.07 x $10^6 A^2$SECS
I^2t : t = 3ms; T_J (initial) = 160°C; $V_{RM} \leqslant$ 10V	: 0.79 x $10^6 A^2$SECS
T_{HS} Operating range	: -40 to 160°C
T_{stg}; Non-operating	: -40 to 185°C

Characteristics

(Maximum values unless stated otherwise)

V_O : T_J =	160°C	: 0.87V
r_s : T_J =	160°C	: 0.323mohms
V_{FM} : I_{FM} = 3090A	T_{VJ} = 160°C	: 1.87V
R_{th}(J-HS) Double side cooled		: 0.033°C/W
Single side cooled		: 0.065°C/W
I_{RRM} : T_J = 160°C	V_{RM} = $V_{RRM(Max)}$	: 30mA
Q_{rr} : I_{TM} =	dI/dt =	:
V_{RM} =	T_{VJ} =	:
Mounting Force		: 1000-2000 Kg.f
Outline drawing		: 100A243
Jedec Outline No.		: DO-200AB

CONTENTS

Changes to Rating Report No. 78NR13

p1 : $I_{F(AV)}$ at T_{HS} = 55°C changed)
" " = 100°C added) D.S.C.

" " = 100°C changed - S.S.C.

$I_{F(rms)}$ MAX changed

I^2t corrected

$T_{HS(MIN)}$ reduced to -40°C

p2 : JEDEC outline No. added

p5-9 : Re-drawn with changes on p5 and p6

R.R. No.	87NR8
R.R. Issue	1
Page Issue	3

Voltage Ratings

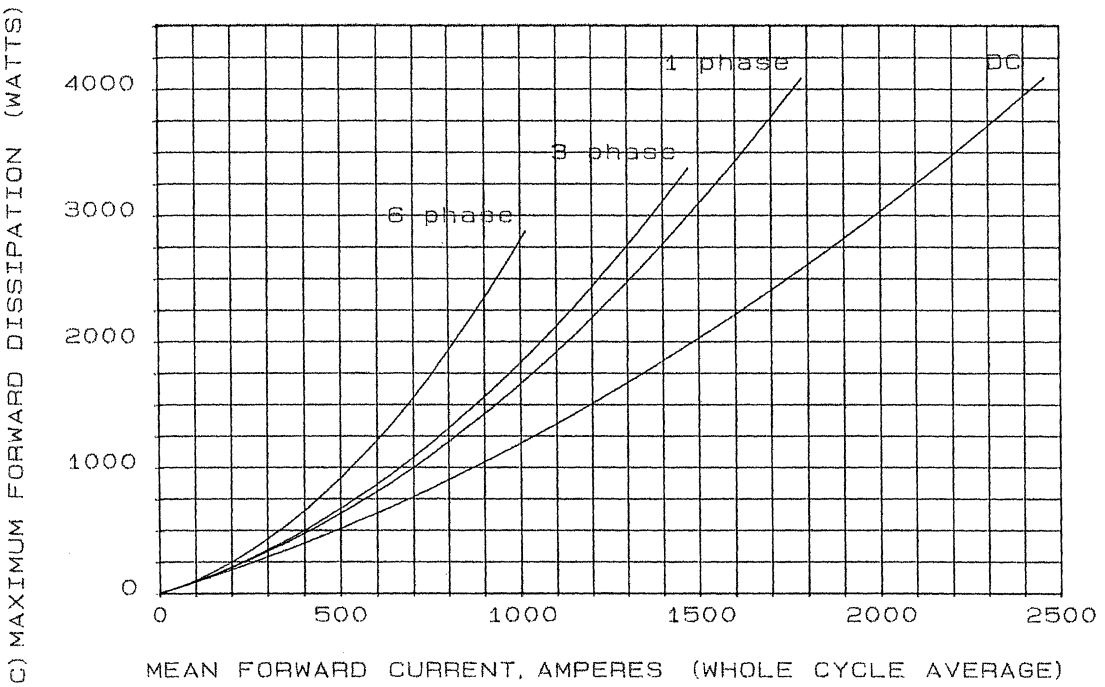
Voltage Class	V_{RRM} V	V_{RSM} V
24	2400	2500
26	2600	2700
28	2800	2900
30	3000	3100

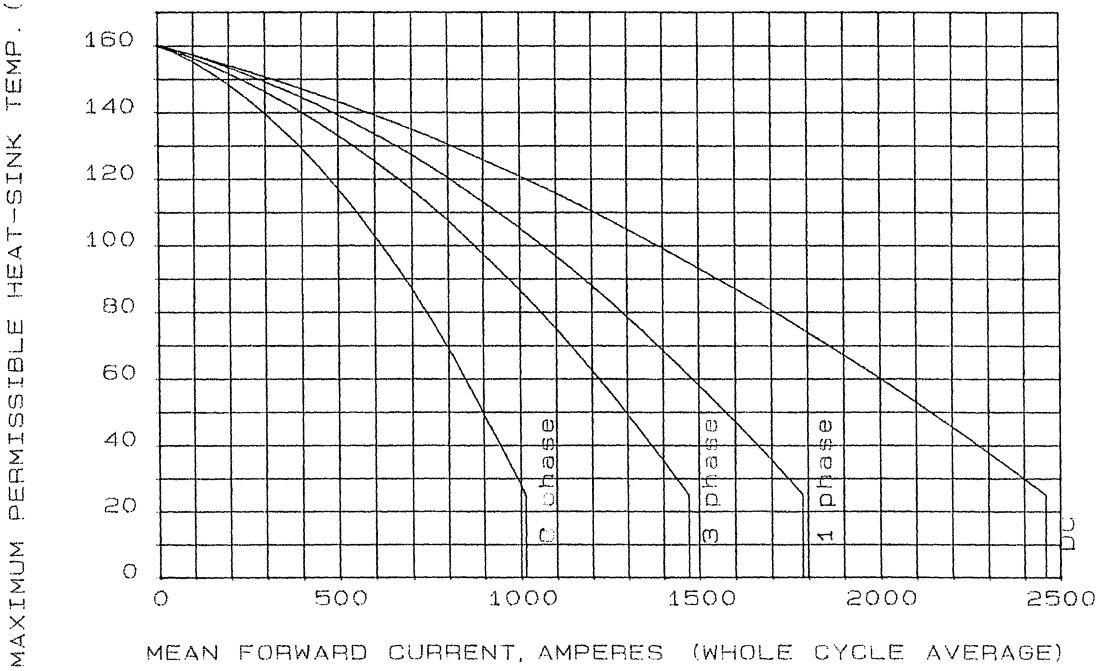
1. Extension of Voltage Grades

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

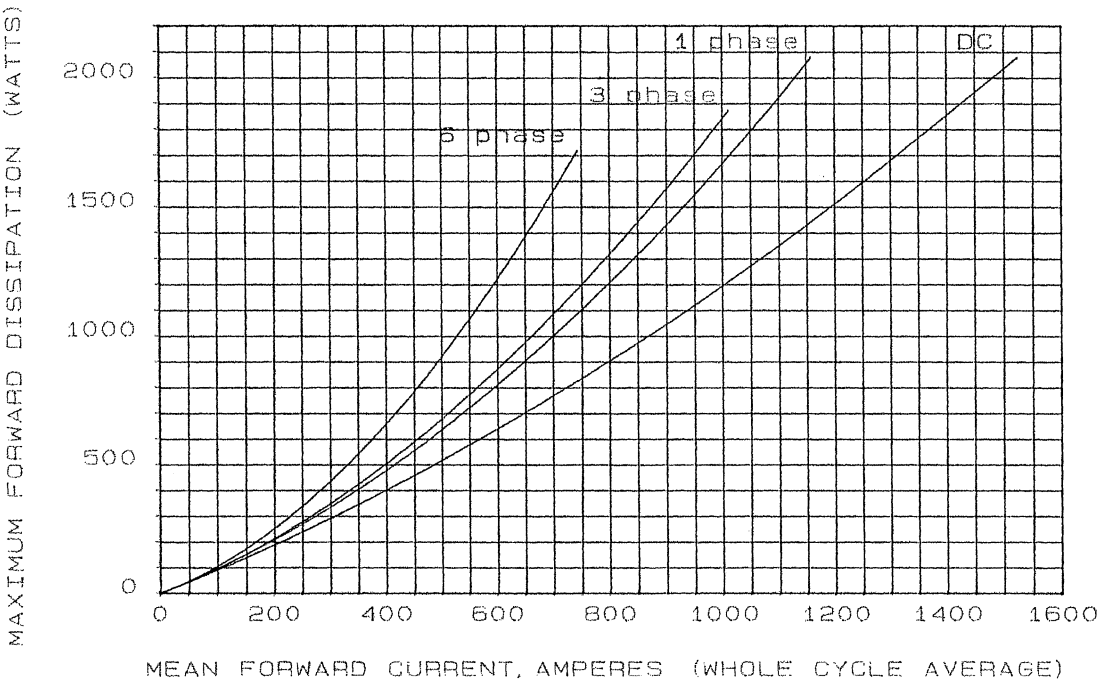
2. A blocking voltage derating factor of 0.13% per deg. Celsius is applicable to this device for T_j below 25°C.

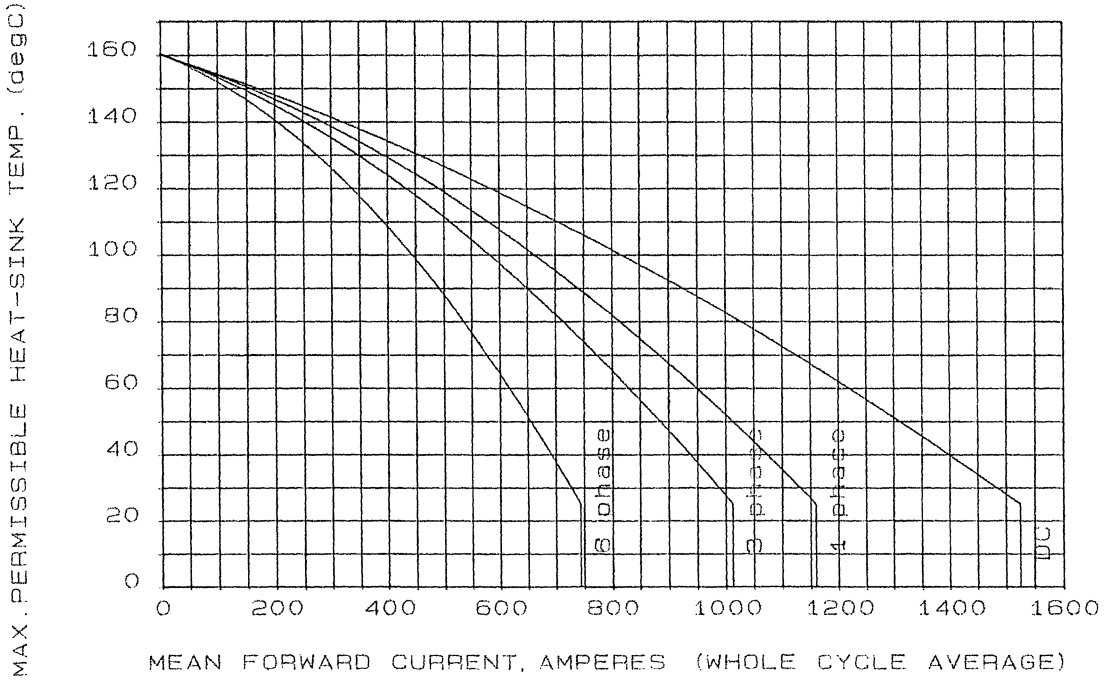
DOUBLE SIDE COOLED

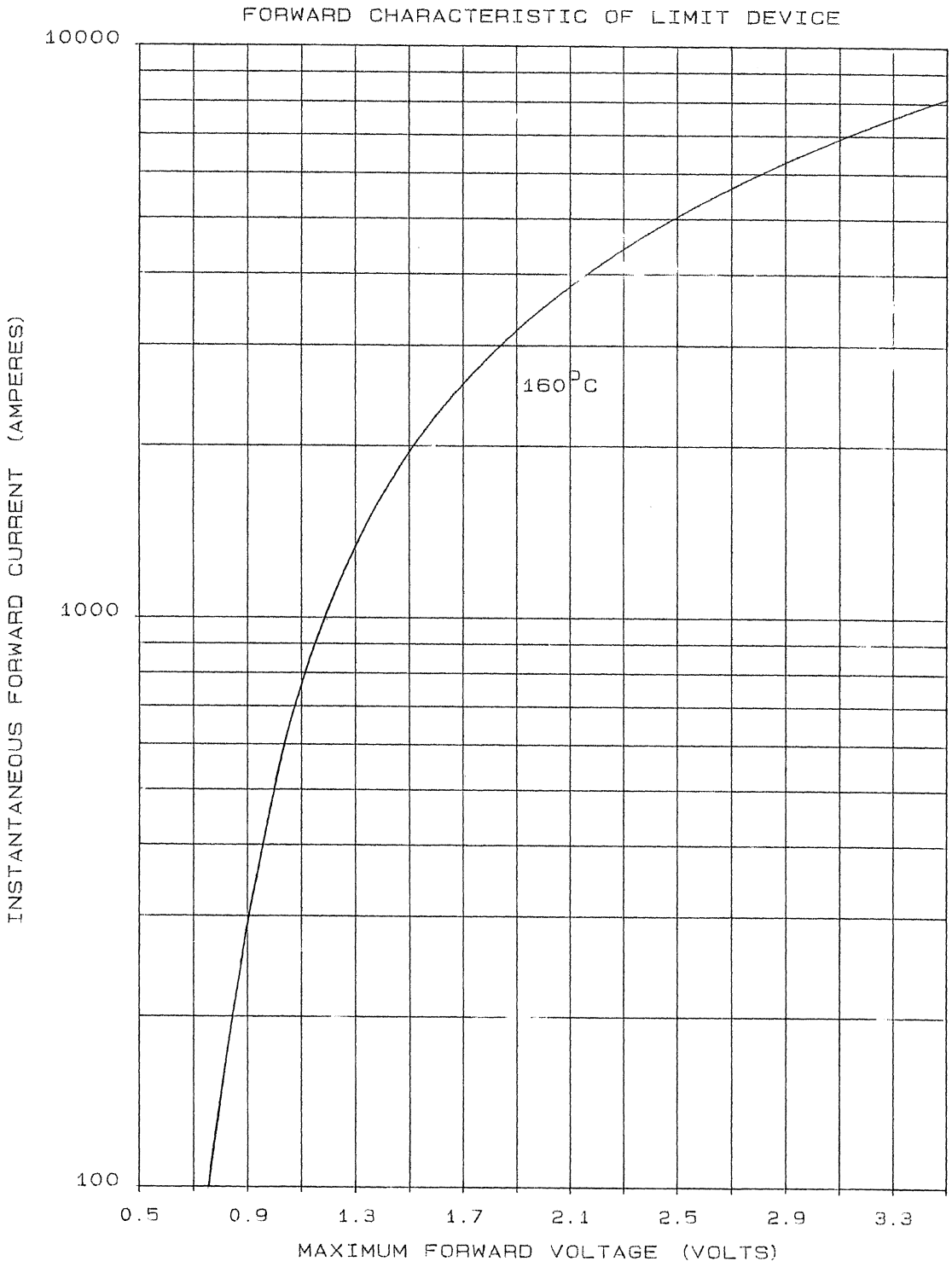


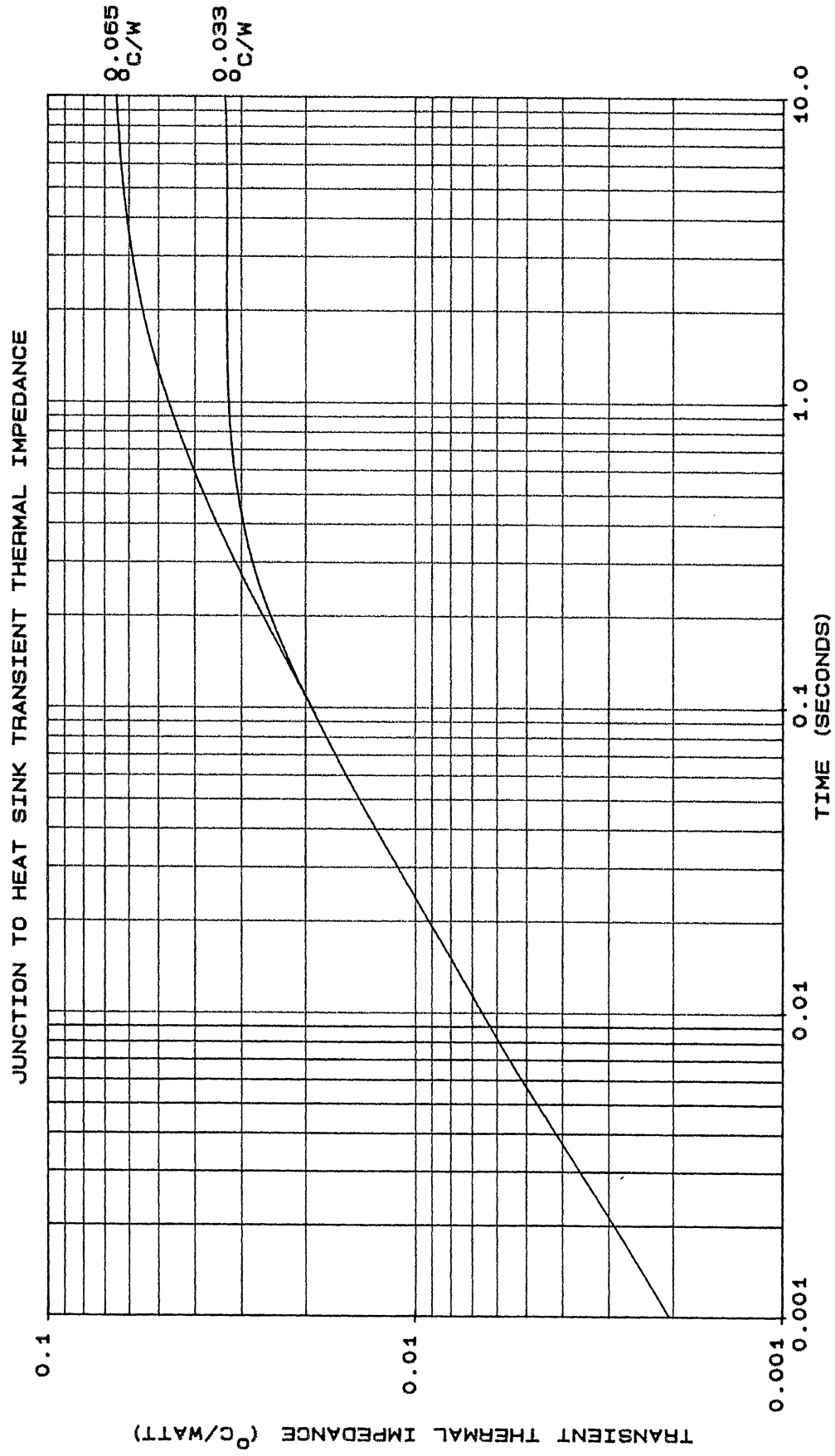


SINGLE SIDE COOLED

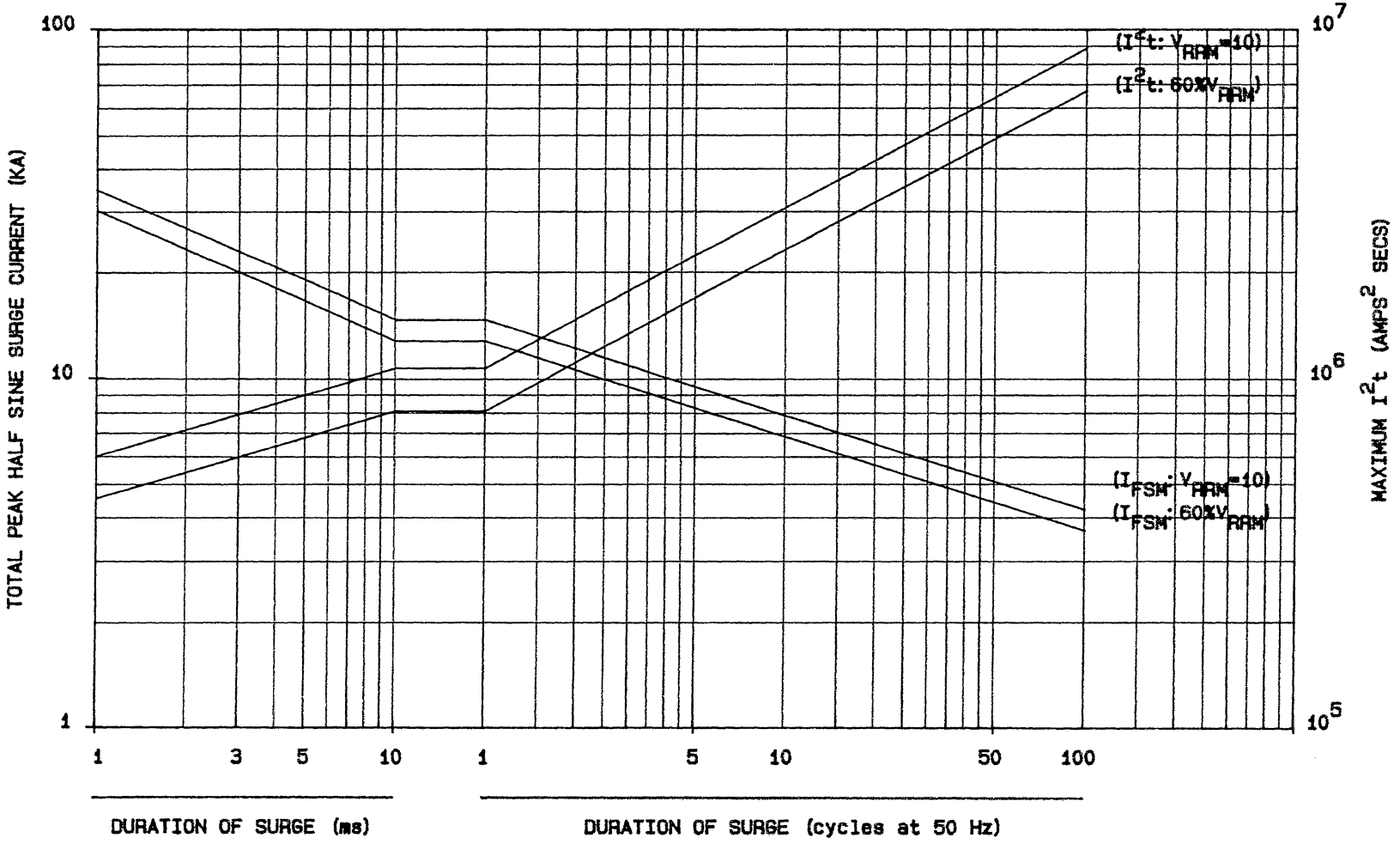





FORWARD CHARACTERISTIC OF LIMIT DEVICE
10000
1000
100
INSTANTANEOUS FORWARD CURRENT (AMPERES)
160°C
0.5
0.9
1.3
1.7
2.1
2.5
2.9
3.3
MAXIMUM FORWARD VOLTAGE (VOLTS)


JUNCTION TO HEAT SINK TRANSIENT THERMAL IMPEDANCE
0.065 °C/W
0.033 °C/W
TRANSIENT THERMAL IMPEDANCE (°C/WATT)
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 160°C



SCALE	1/1
DRN	
CHKD	
APPD	
	GEC 1 CS 1 QA 1 LP 2 HP 2 A
S	NI

INTERNATIONAL OUTLINE No. DO-200AB

WEIGHT. 340 GRAMS.

FINISH. ET TO BS 1872

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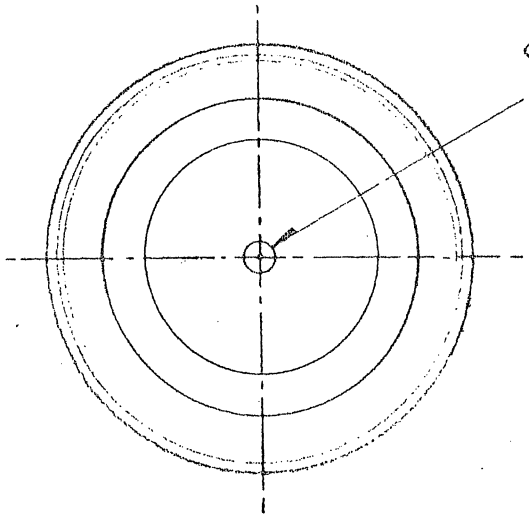
DEVICE MARKING INCLUDES MONOGRAM, TYPE No., SPEC. No. AND POLARITY SYMBOL.

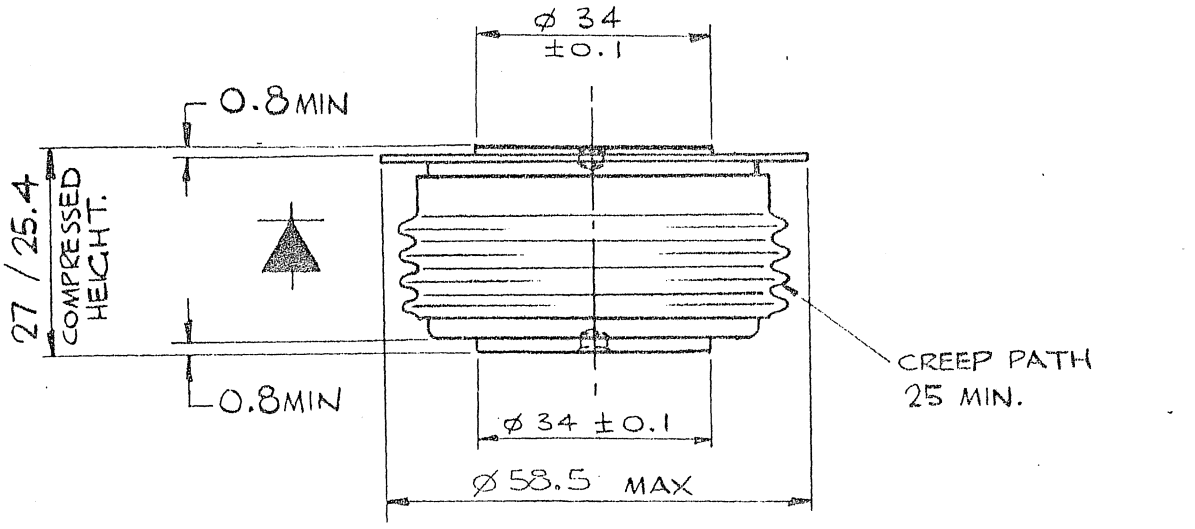
DEVICE MOUNTING: CLAMPING FORCE : 1000 - 2000 kgf.

CLAMPING FORCE TO BE APPLIED ON ℄ OF LOCATION HOLES & BE EVENLY DISTRIBUTED OVER AREA OF CONTACT. FLATNESS TOL ON SURFACES TO WHICH DEVICE IS CLAMPED TO BE 0.04 WIDE.

G:A. DRG. No. 159B100H204

TYPE NUMBER	
CXC 935	CXC 220
CXC 805	CXC 221
CXC [illegible]	CXC 471
CXC 805	CXC 521
CXC 515	CXC 721
CXC 371	





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

WESTCODE ® SEMICONDUCTORS

THIRD ANGLE PROJECTION

DIMNS. IN MILLIMETRES

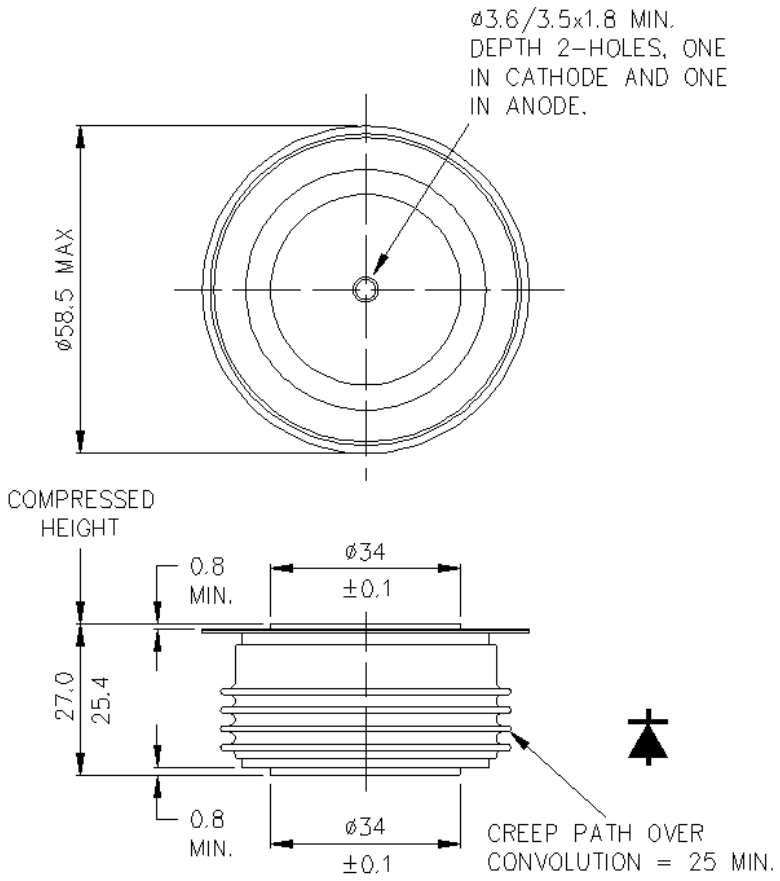
DRG. No. 100A243

ISS	REVISIONS	
1	7.9.77 PI80	
2	P304 15.5.78 ø34 WAS ø38. 1.9 MIN WAS 3 MIN. 0.8 MIN WAS 0.5 & 1.5 MIN.	
3	12.9.78 ø58.5 WAS ø60. CLAMP FORCE WAS 500-1800 kgf.	
4	2.10.78 TYPE NUMBERS ADDED.	

Drawing Number – W4

Outline Number – 100A243

WESTCODE
An IXYS Company



Weight 340g

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