

Rectifier Diode

W1748LC080 to W1748LC220

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

(Rating Report 87NR9 Issue 1)

This data reflects the old part number for this product which is: SW02-22CXC805. 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 not available for grades 02 to 06 (200V to 600)
 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.

Ordering Particulars			
W1748	LC	◆◆	0
Fixed Type Code	Fixed Outline Code	Voltage code V _{DRM} /100 08-22	Fixed Code
Typical Order Code: W1748LC200, 27mm clamp height, 2000V V _{RRM}			

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QUALITY EVALUATION LABORATORY

Rating Report: 87NR9

Date: 11th June, 1987

Pages: 10

Diode Type SW02-22CXC805

Written by: *m/n. Jankop*

Checked: *m/n.*

Approved: *[Signature]*

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. 78NR12.

Ratings

Voltage Grades	:	02-22
V_{RSM}	:	300-2300V
V_{RRM}	:	200-2200V
$I_{F(AV)}$: Single Phase; 50 Hz, 180° half sinewave;		
Double side cooled $T_{HS} = 55^{\circ}C, 100^{\circ}C$:	1750A; 1300A
Single side cooled $T_{HS} = 100^{\circ}C$:	808A
I_F (rms) max.)		
) Double side cooled $T_{HS} = 25^{\circ}C$:	3160A
I_F max.)		
) Single side cooled $T_{HS} = 25^{\circ}C$:	2760A
I_{FSM} : t = 10ms half sinewave; T_J (initial) = 175°C;		
$V_{RM} = 0.6 V_{RRM}(Max)$:	15,400A
I_{FSM} ; t = 10ms half sinewave; T_J (initial) = 175 °C; $V_{RM} \leq 10V$:	17,700A
I^2t : t = 10ms; T_J (initial) = 175 °C; $V_{RM} = 0.6 V_{RRM}(Max)$:	$1.19 \times 10^6 A^2 SECS$
I^2t : t = 10ms; T_J (initial) = 175 °C; $V_{RM} \leq 10V$:	$1.57 \times 10^6 A^2 SECS$
I^2t : t = 3ms; T_J (initial) = 175 °C; $V_{RM} \leq 10V$:	$1.16 \times 10^6 A^2 SECS$
T_{HS} Operating range	:	-40 to 175°C
T_{stg} ; Non-operating	:	-40 to 200°C

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Changes to Rating Report No. 78NR12

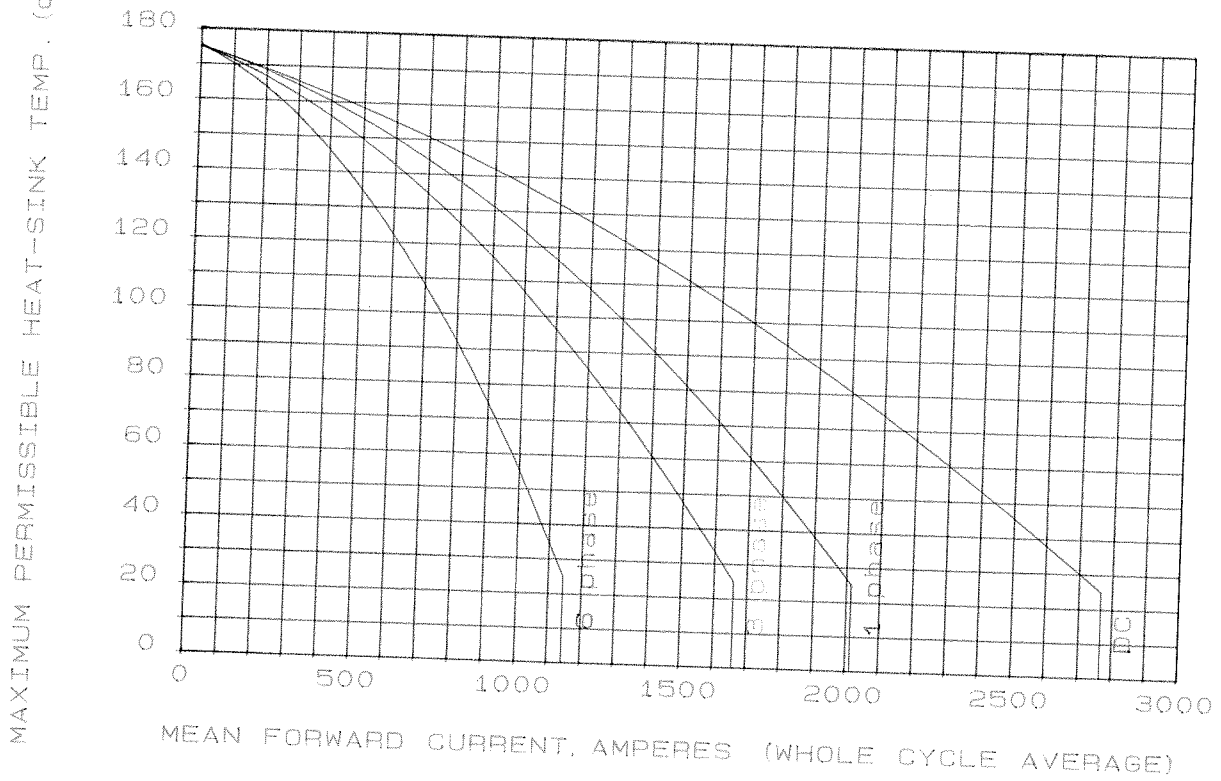
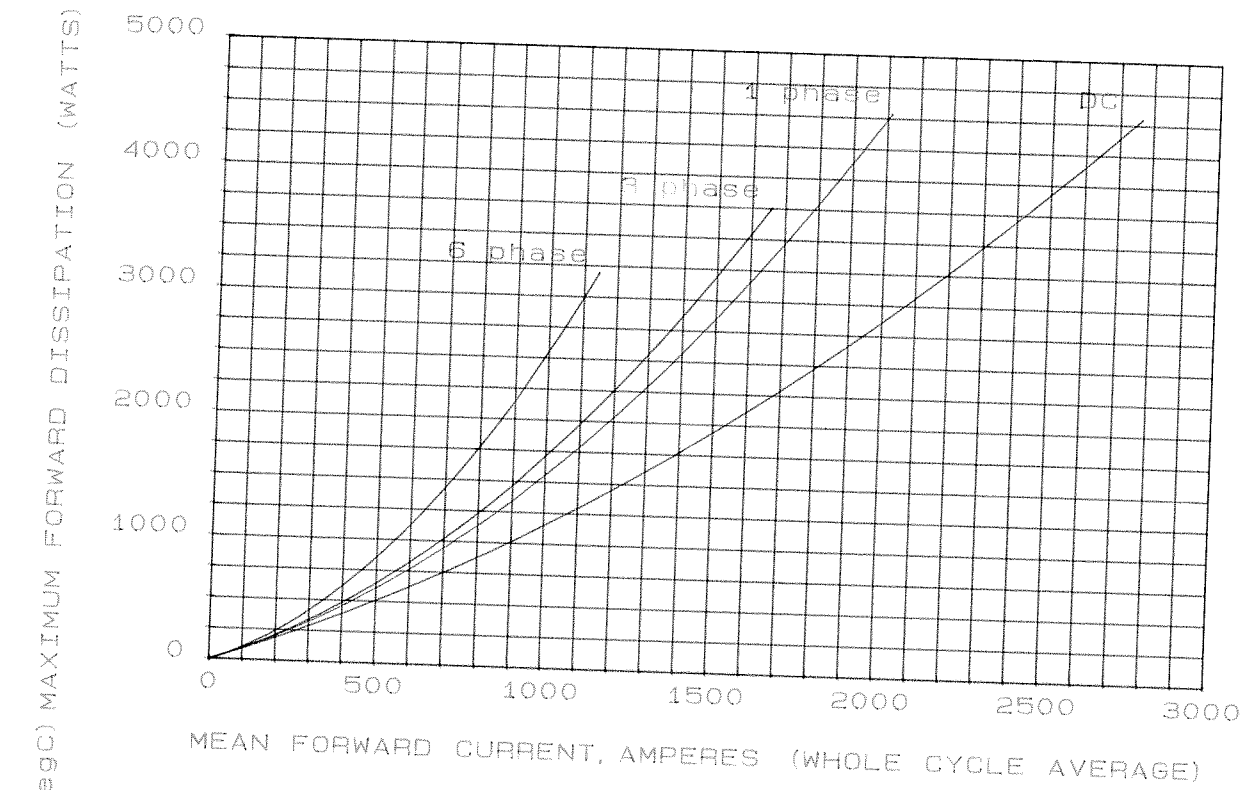
- p1 : $I_{T(AV)}$ at $T_{HS} = 55^\circ\text{C}$ changed)
" " = 100°C added) D.S.C.
" " = 100°C changed - S.S.C.
 I^2t_1)
 I^2t_2) corrected
 $T_{HS} \text{ (MIN)}$ reduced to -40°C
p2 : JEDEC outline No. added
pp5-9 : Re-drawn with changes on p5 and p6.

Voltage Ratings

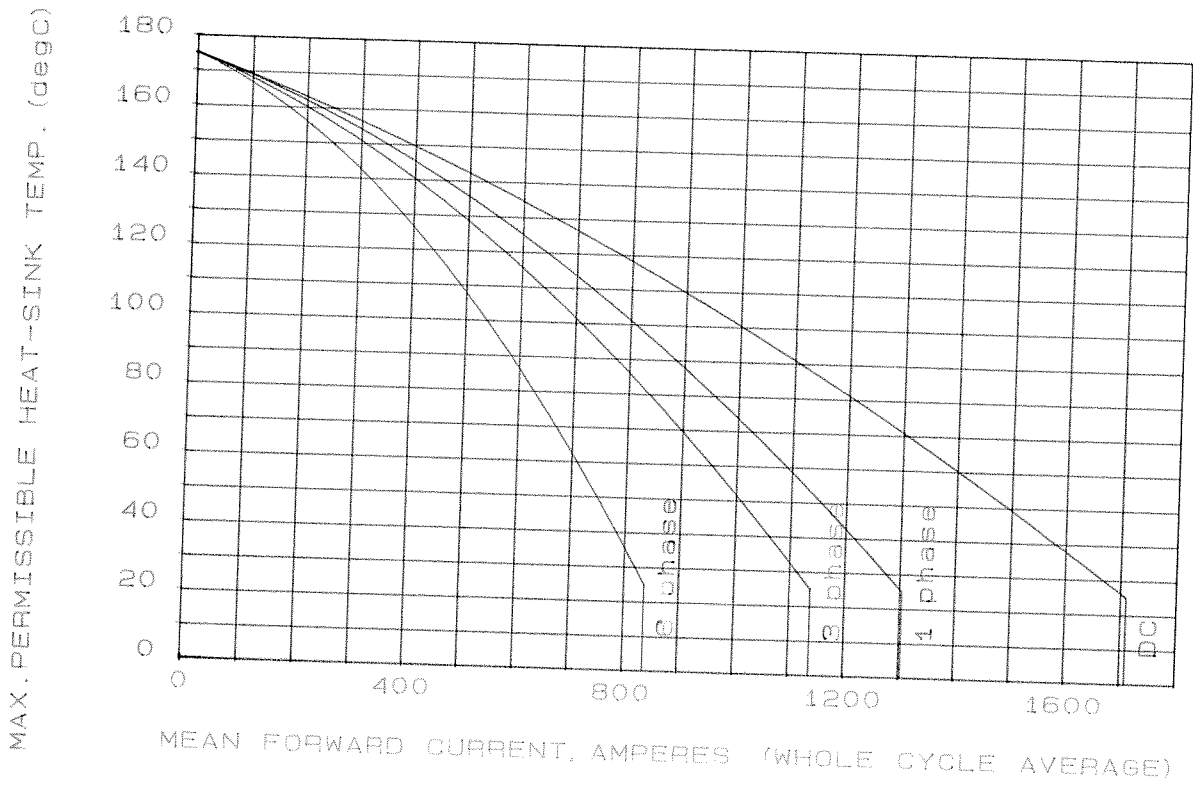
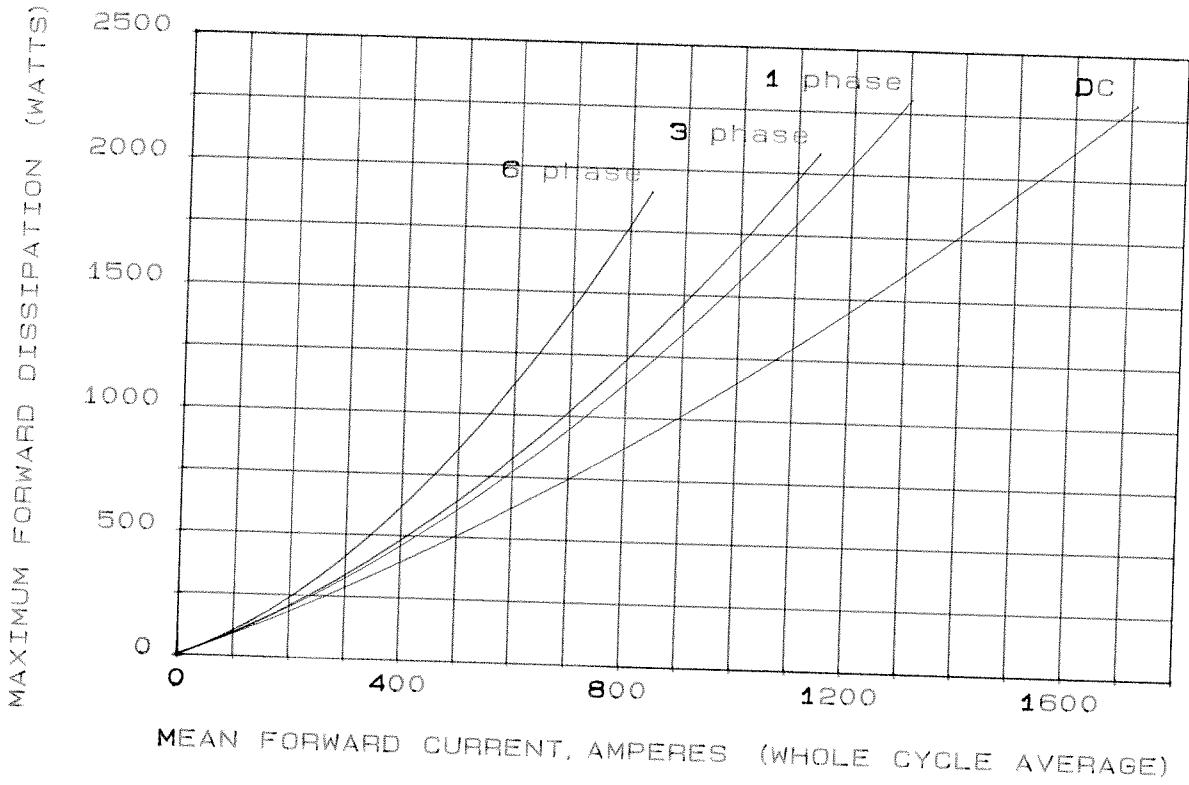
Voltage Class SW	V_{RRM}	V_{RSM} V
02	200	300
04	400	500
06	600	700
08	800	900
10	1000	1100
12	1200	1300
14	1400	1500
16	1600	1700
18	1800	1900
20	2000	2100
22	2200	2300

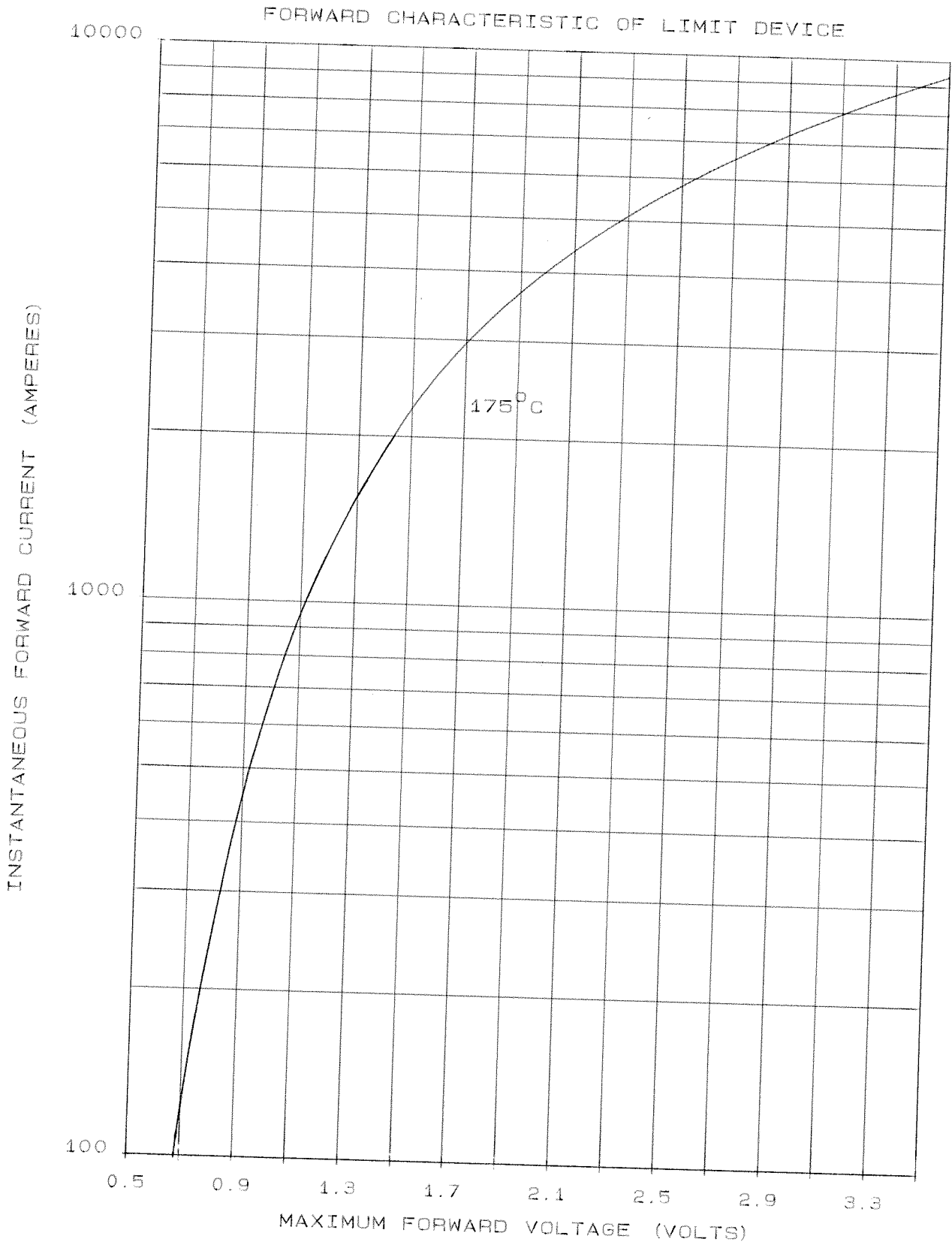
This report is applicable to higher or lower voltage grades when supply has been agreed by Sales/Production.

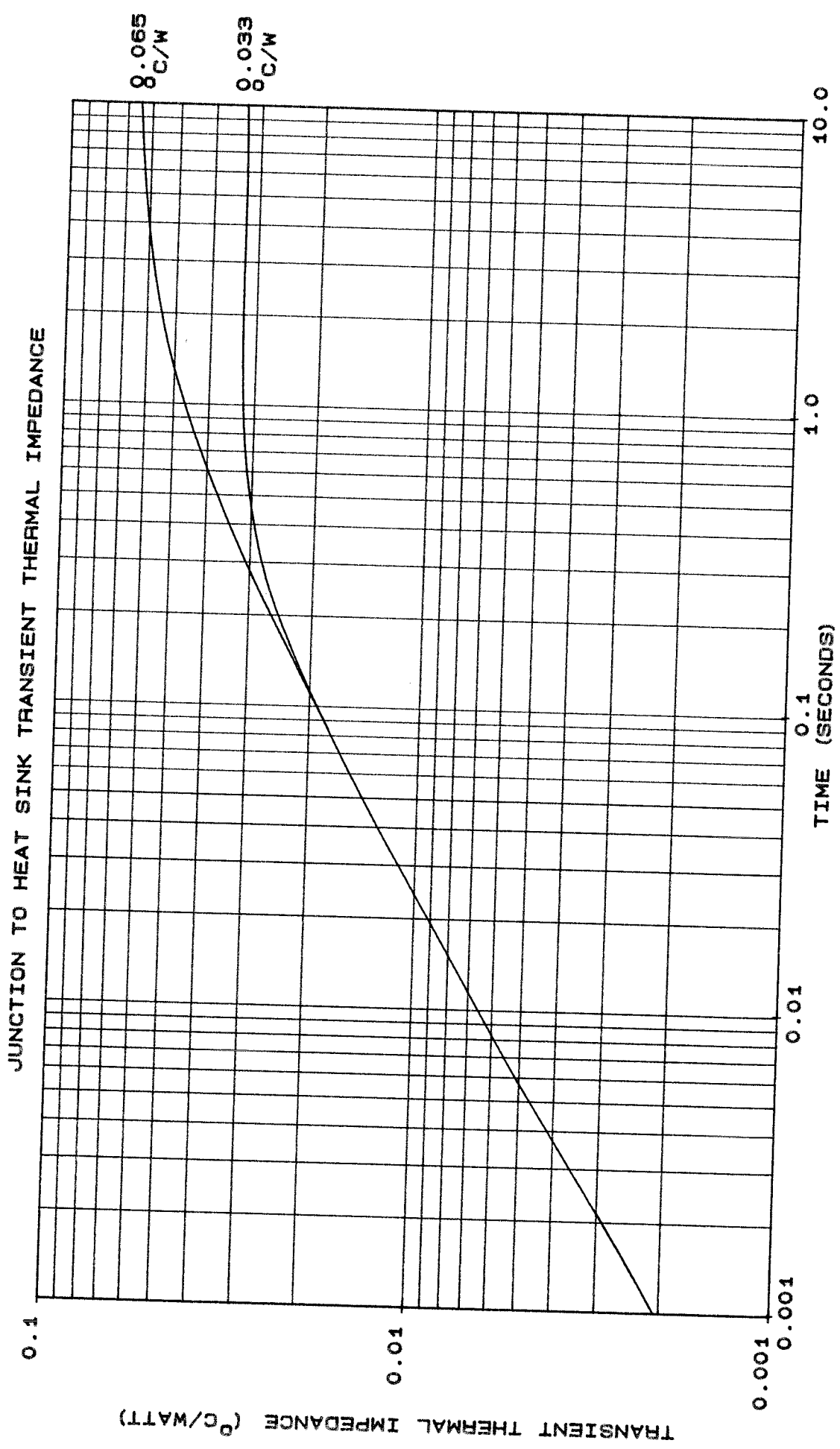
DOUBLE SIDE COOLED



SINGLE SIDE COOLED







JUNCTION TO HEAT SINK TRANSIENT THERMAL IMPEDANCE

TRANSIENT THERMAL IMPEDANCE (°C/WATT)

0.065
C/W

0.033
C/W

TIME (SECONDS)

0.1

0.01

0.001
0.001

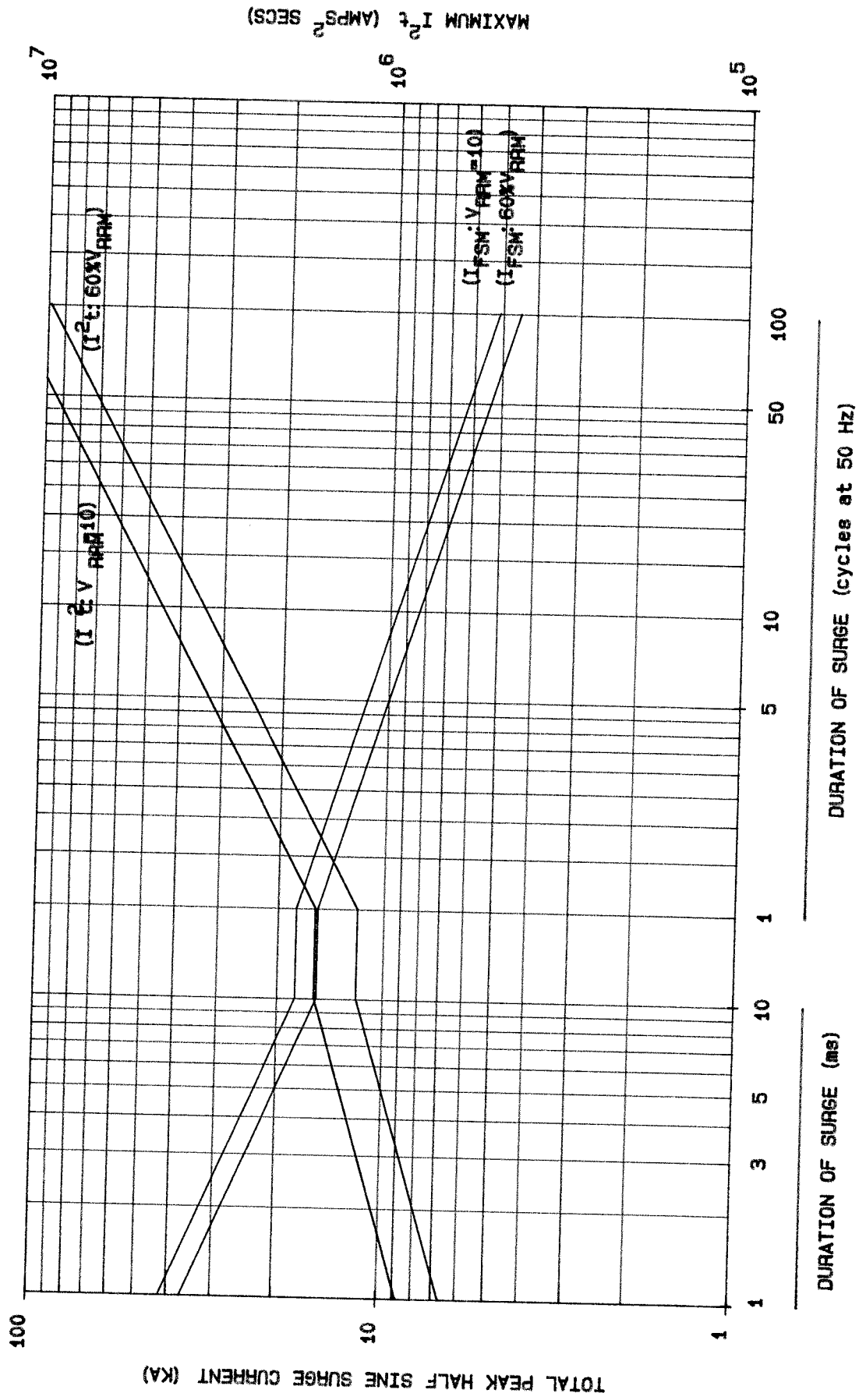
0.01

0.1

1.0

10.0

MAXIMUM NON REPETITIVE SURGE CURRENT AT INITIAL JUNCTION TEMPERATURE 175°C



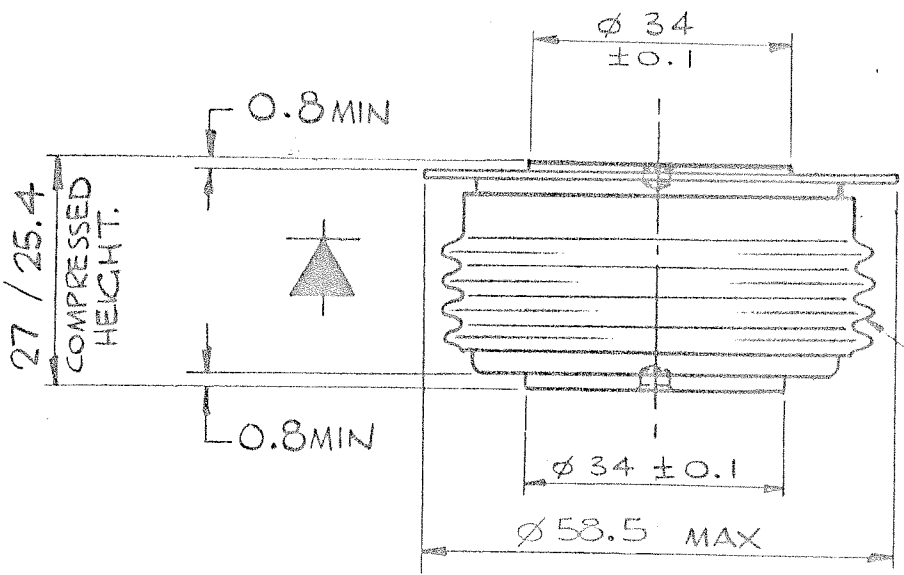
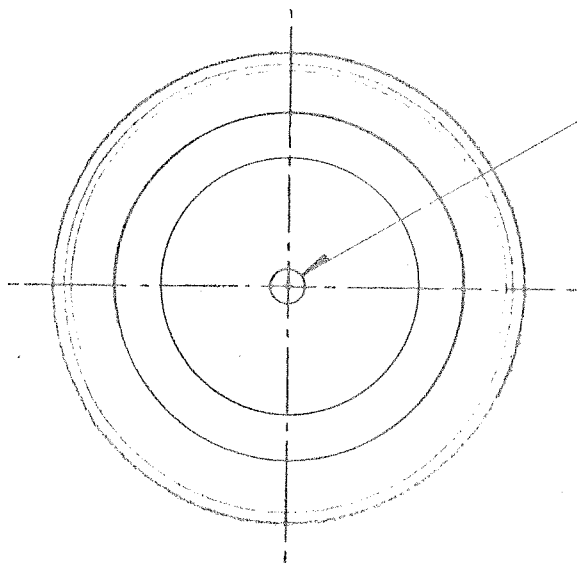
SCALE	1/1
DRN	
CHKD	
APPD	
GEC-1	
CS	1
QA	1
LP	2
HP	2
	A
S	NI

INTERNATIONAL OUTLINE No. **DO-200AB**
 WEIGHT. **340 GRAMS.** - 10 -
 FINISH. **ET TO BS1872**
 DEVICE MARKING INCLUDES MONOGRAM, TYPE No., SPEC. No. AND POLARITY SYMBOL.
 DEVICE MOUNTING: CLAMPING FORCE :
1000 - 2000 kgf.

CXC 935	CXC 220
CXC 805	CXC 224
CXC 835	CXC 474
CXC 595	CXC 524
CXC 515	CXC 724
CXC 374	

CLAMPING FORCE TO BE APPLIED ON ϕ 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**



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 CHIPPENHAM, WILTSHIRE, SN15 1JD, ENGLAND.

WESTCODE[®]
 SEMICONDUCTORS

THIRD ANGLE PROJECTION



DIMNS. IN MILLIMETRES

DRG. No. **100A243**

ISS	REVISIONS
1	7.9.77 P88
2	P304 15.5.78 ø34 WAS ø38. 3 MIN. 0.8 MIN WAS 0.5 & 1.5 MIN.
3	12.9.78 ø58.5 WAS ø60. CLAMP FORCE WAS 000-1800kgf.
4	12.10.78 TYPE N ^o ADDED.