Rectifier Diode
Types W7675Z#020 to W7675Z#140

The data sheet on the subsequent pages of this document is a scanned copy of existing data for this product.
(Rating Report 90NR21 Issue 1)

This data reflects the old part number for this product which is: SW02-14CXC30C.
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 (W22) in datasheet
No reverse recovery information available

The following links will direct you to the appropriate outline drawings
Outline W7 – 37mm 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.

Ordering Particulars

W7675	Z#	♦♦	**0**
Fixed Type Code	ZC – 37mm clamp height capsule ZD – 26mm clamp height capsule	Voltage code V_{RRM}/100 02-14	Fixed Code

Typical Order Code: W7675ZC140, 37mm clamp height capsule, 1400V V_{RRM}

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QUALITY EVALUATION LABORATORY

Rating Report: 90NR21 Date: 17th October, 1990

Pages: 10

Diode Type SW02-14CXC30C

Written by: M. Baker Checked: Approved:

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

Ratings

Voltage Grades	: 02-14
V_{RSM}	: 300-1500V
V_{RRM}	: 200-1400V
$I_{F(AV)}$: Single Phase; 50 Hz, 180° half sinewave;	
Double side cooled T_{HS} = 55°C, 100°C	: 7680A, 5990A
Single side cooled T_{HS} = 100°C	: 3700A
I_F (rms) max.)) Double side cooled T_{HS} = 25°C	: 13670A
I_F max.)	: 12000A
I_{FSM} : t = 10ms half sinewave; T_J (initial) = 190°C; V_{RM} = 0.6 V_{RRM}(Max)	: 68000A
I_{FSM} ; t = 10ms half sinewave; T_J (initial = 190°C; $V_{RM} \leqslant$ 10V	: 75000A
I^2t : t = 10ms; T_J (initial) = 190°C; V_{RM} = 0.6 V_{RRM}(Max)	: 23.1 x $10^6 A^2$SECS
I^2t : t = 10ms; T_J (initial) = 190°C; $V_{RM} \leqslant$ 10V	: 28.1 x $10^6 A^2$SECS
I^2t : t = 3ms; T_J (initial) = 190°C; $V_{RM} \leqslant$ 10V	: 21.1 x $10^6 A^2$SECS
T_{HS} Operating range	: -55 to +190°C
T_{stg}; Non-operating	: -55 to +200°C

Characteristics

(Maximum values unless stated otherwise)

V_O : T_J = 190°C	:	0.65V
r_s : T_J = 190°C	:	0.05 mohms
COLD		
A : T_J = 25°C	:	0.5083424
B : T_J = 25°C	:	5.439872E-2
C : T_J = 25°C	:	3.222693E-5
D : T_J = 25°C	:	-1.477781E-3
HOT		
A : (Constant)	:	0.4569419
B : (B x ln i)	:	3.803878E-2
C : (C x i)	:	5.579064E-5
D : (D x $\sqrt{i}$)	:	-2.168298E-3
V_{FM} : I_{FM} = 6800A T_{VJ} = 190°C	:	0.99V
R_{th}(J-HS) double side cooled	:	0.011 K/W
single side cooled	:	0.022 K/W
I_{RRM} : T_J = 190°C V_{RM} = $V_{RRM(Max)}$	:	100 mA
Q_{RA} : I_{TM} = T_{VJ} =	:	
: V_{RM} = T_{VJ} =	:	
Mounting Force	:	2700-4700 Kg.f
Outline Drawing	:	100A293
JEDEC Outline No.	:	-

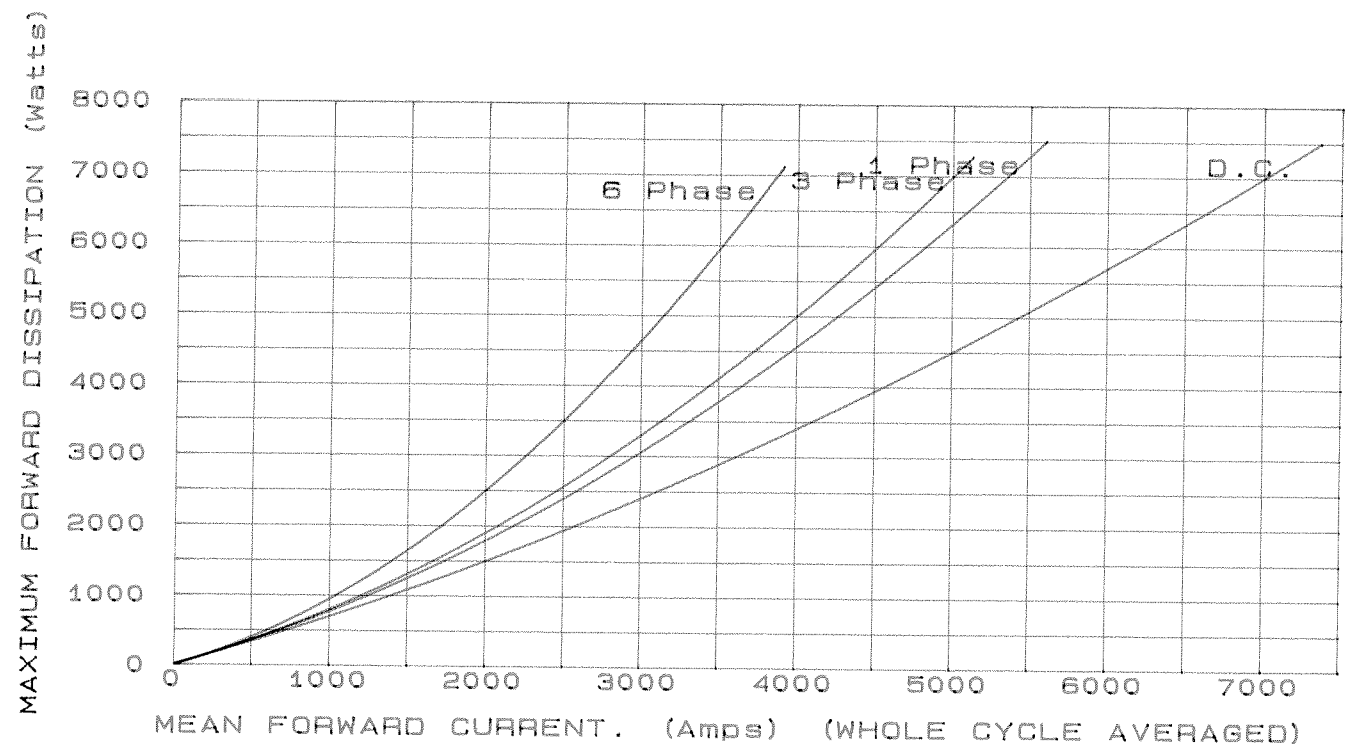
CONTENTS

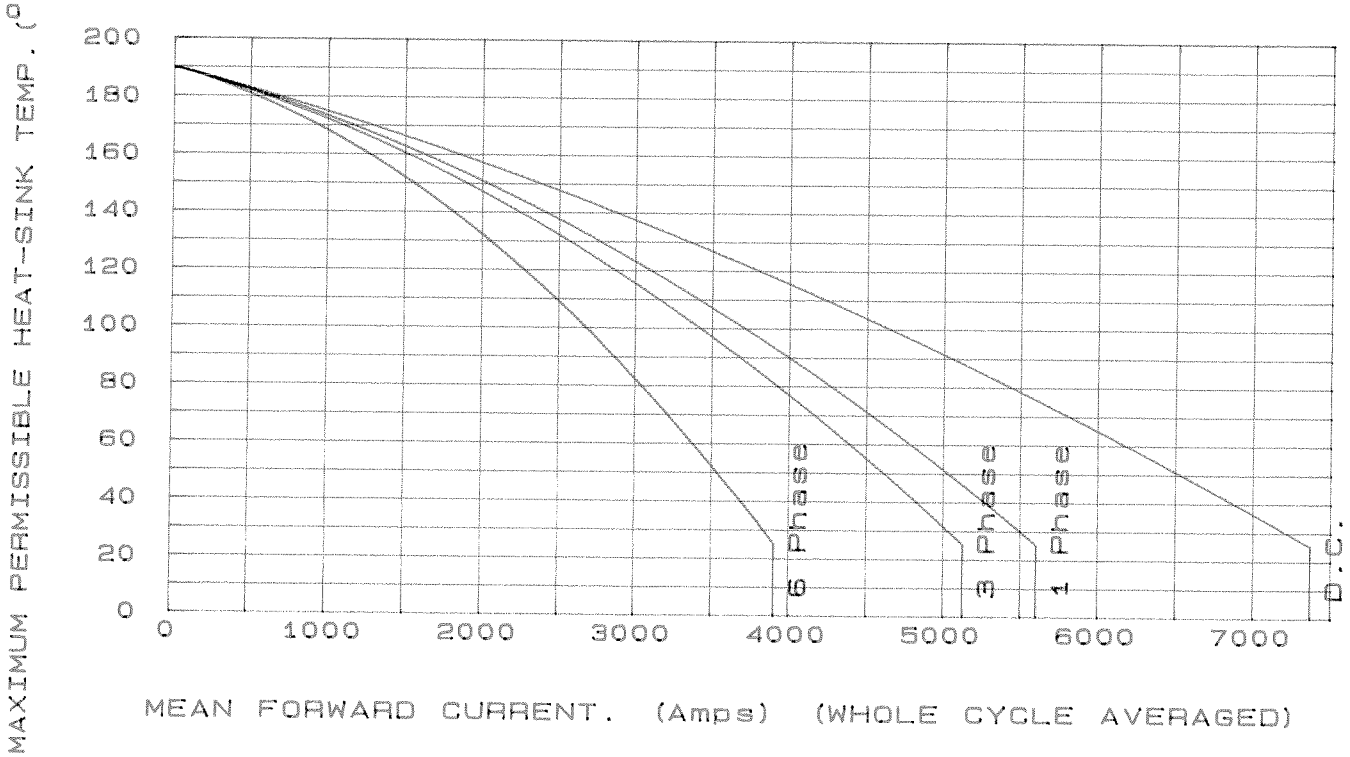
Voltage Ratings

Voltage Class	V_{RRM} V	V_{RSM} V
2	200	300
4	400	500
6	600	700
8	800	900
10	1000	1100
12	1200	1300
14	1400	1500

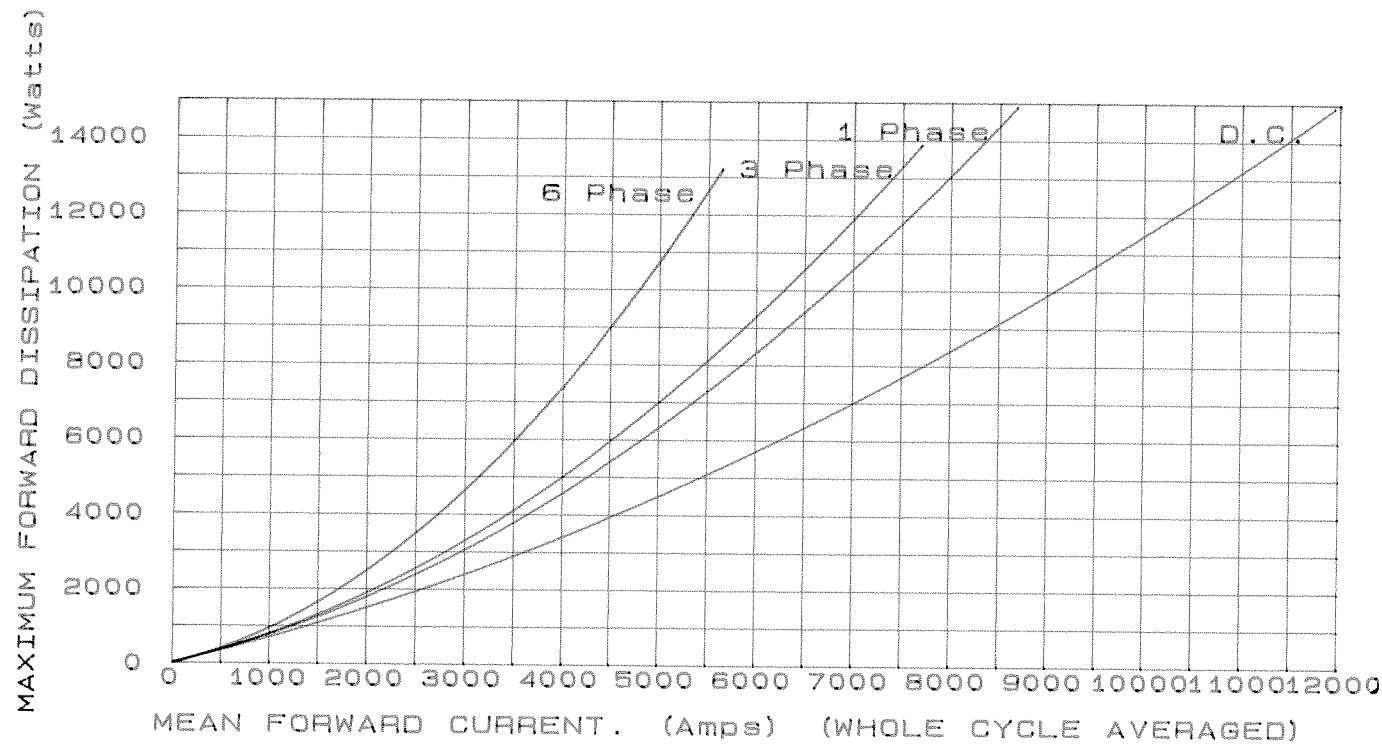
This Report is applicable to higher or lower voltage grades when supply has been agreed by Sales/Production.

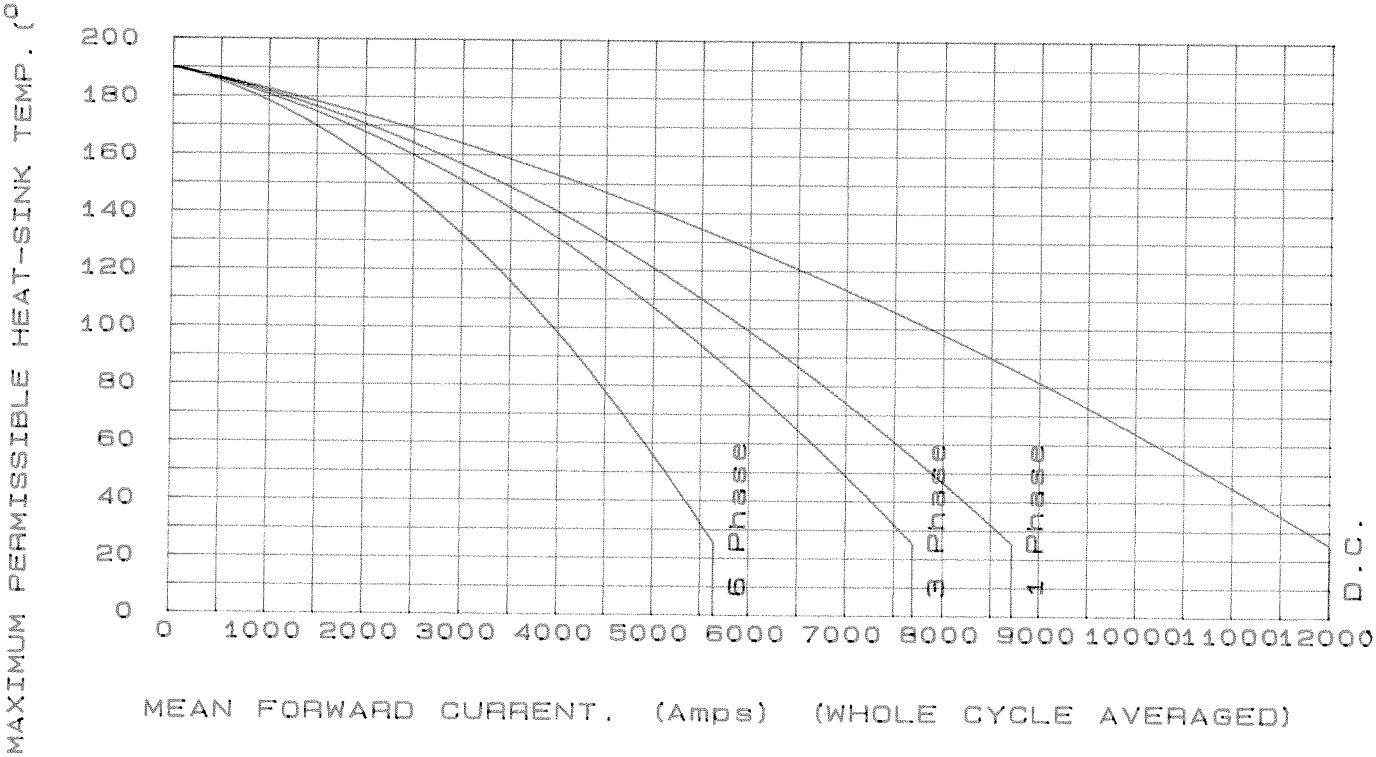
SINGLE SIDE COOLED



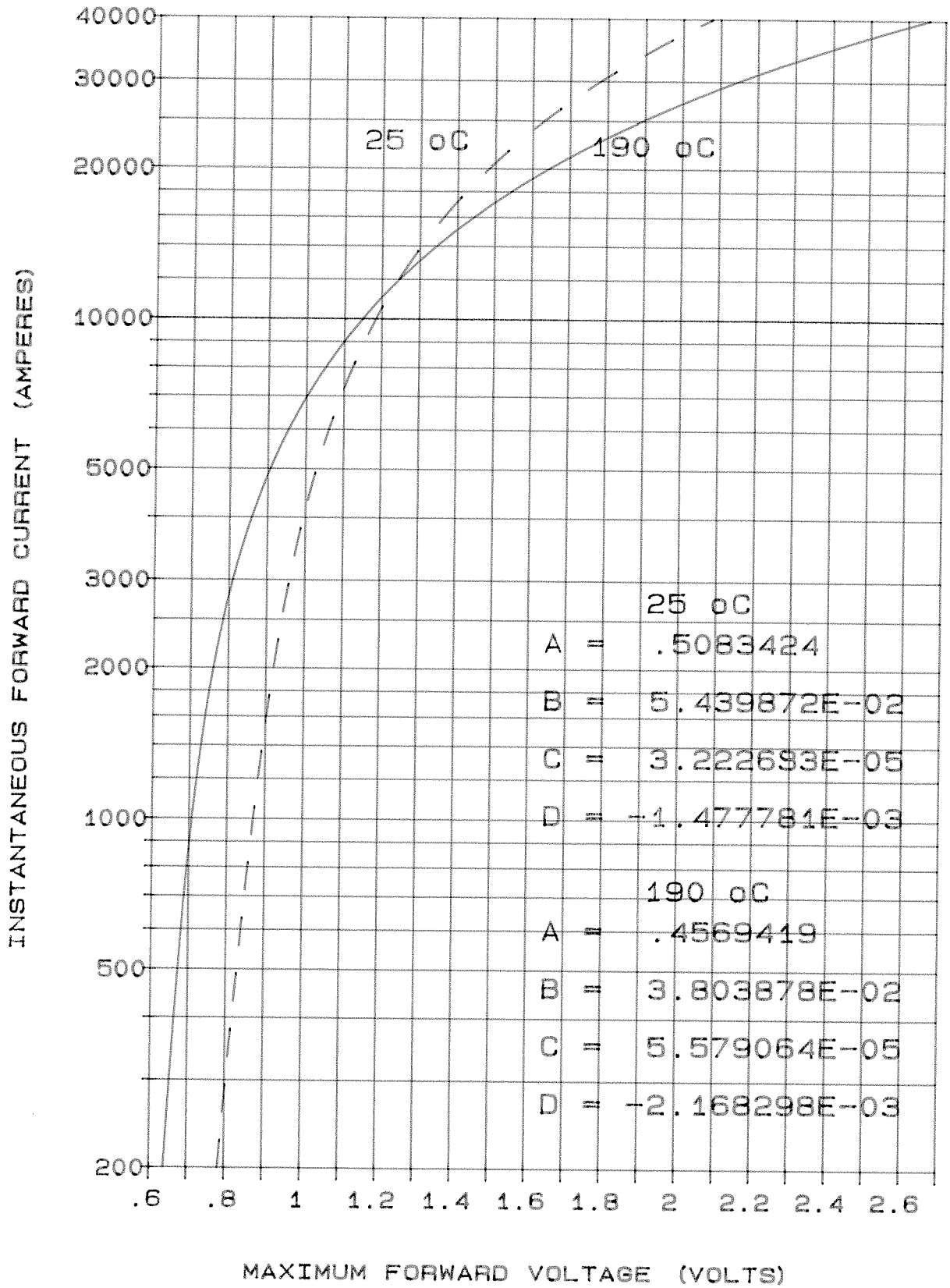


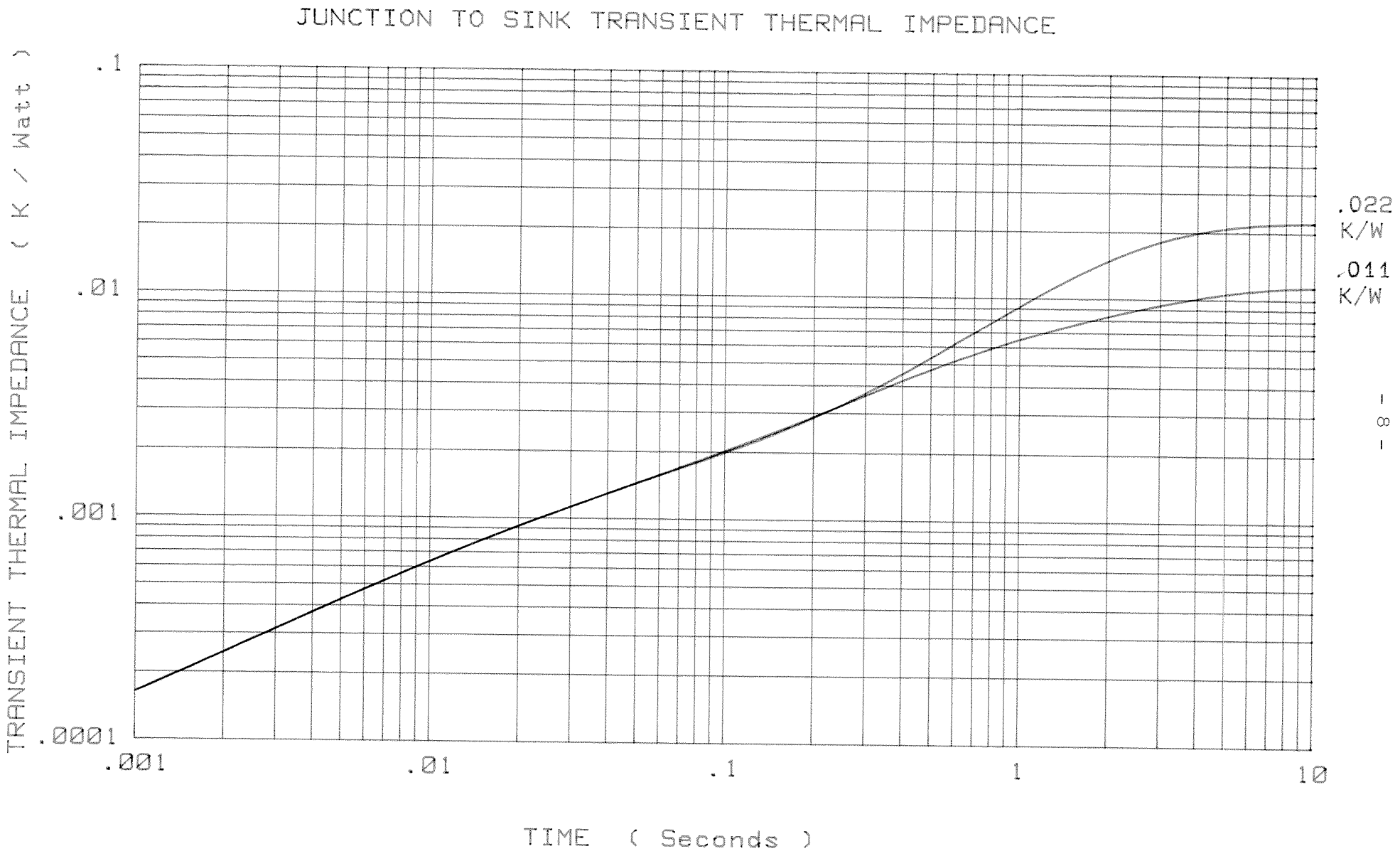
DOUBLE SIDE COOLED



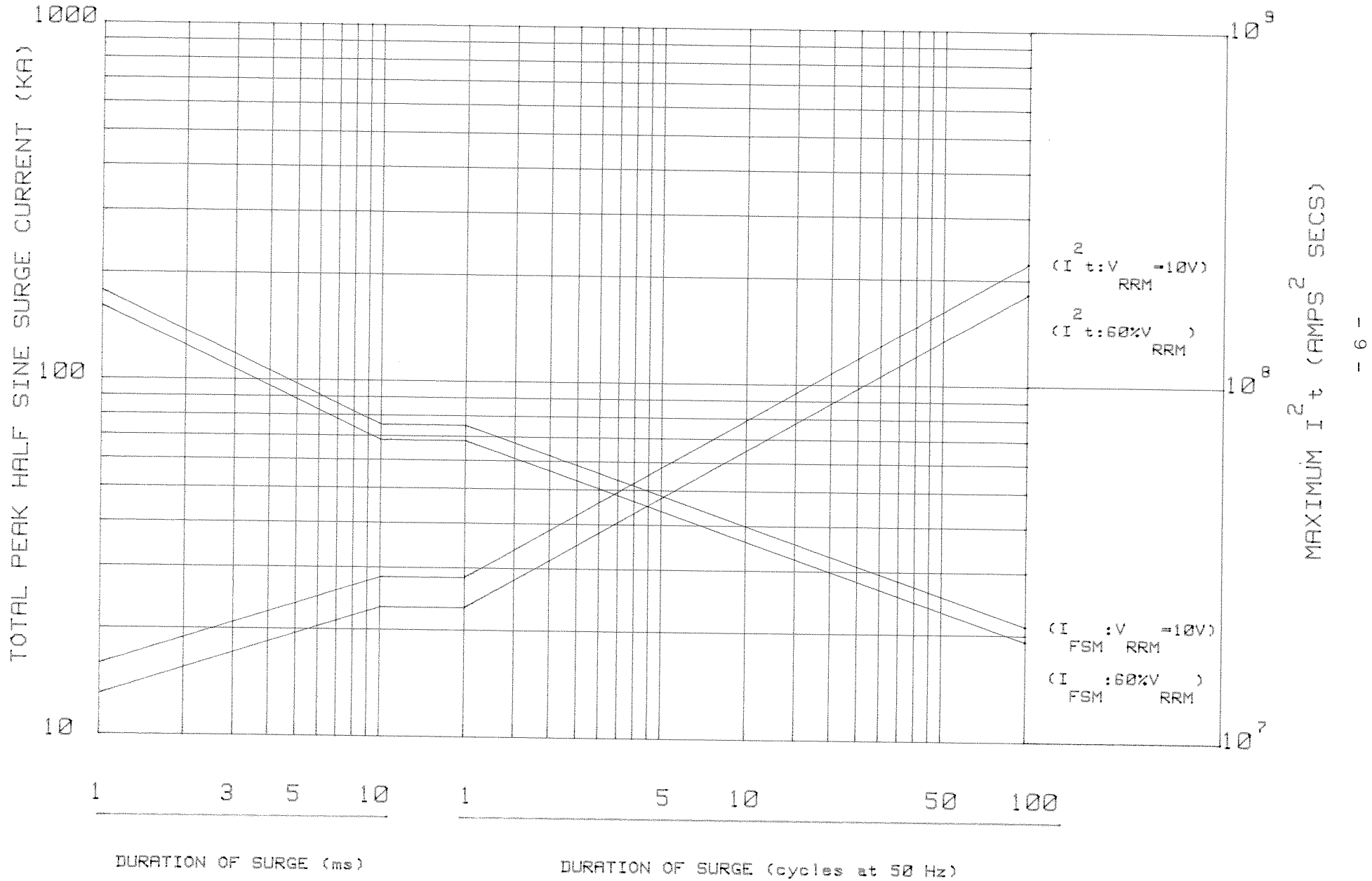


FORWARD CHARACTERISTIC OF LIMIT DEVICE




JUNCTION TO SINK TRANSIENT THERMAL IMPEDANCE
TRANSIENT THERMAL IMPEDANCE (K / Watt)
.1
.01
.001
.0001
.001
.01
.1
1
10
TIME (Seconds)
.022 K/W
.011 K/W
∞

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

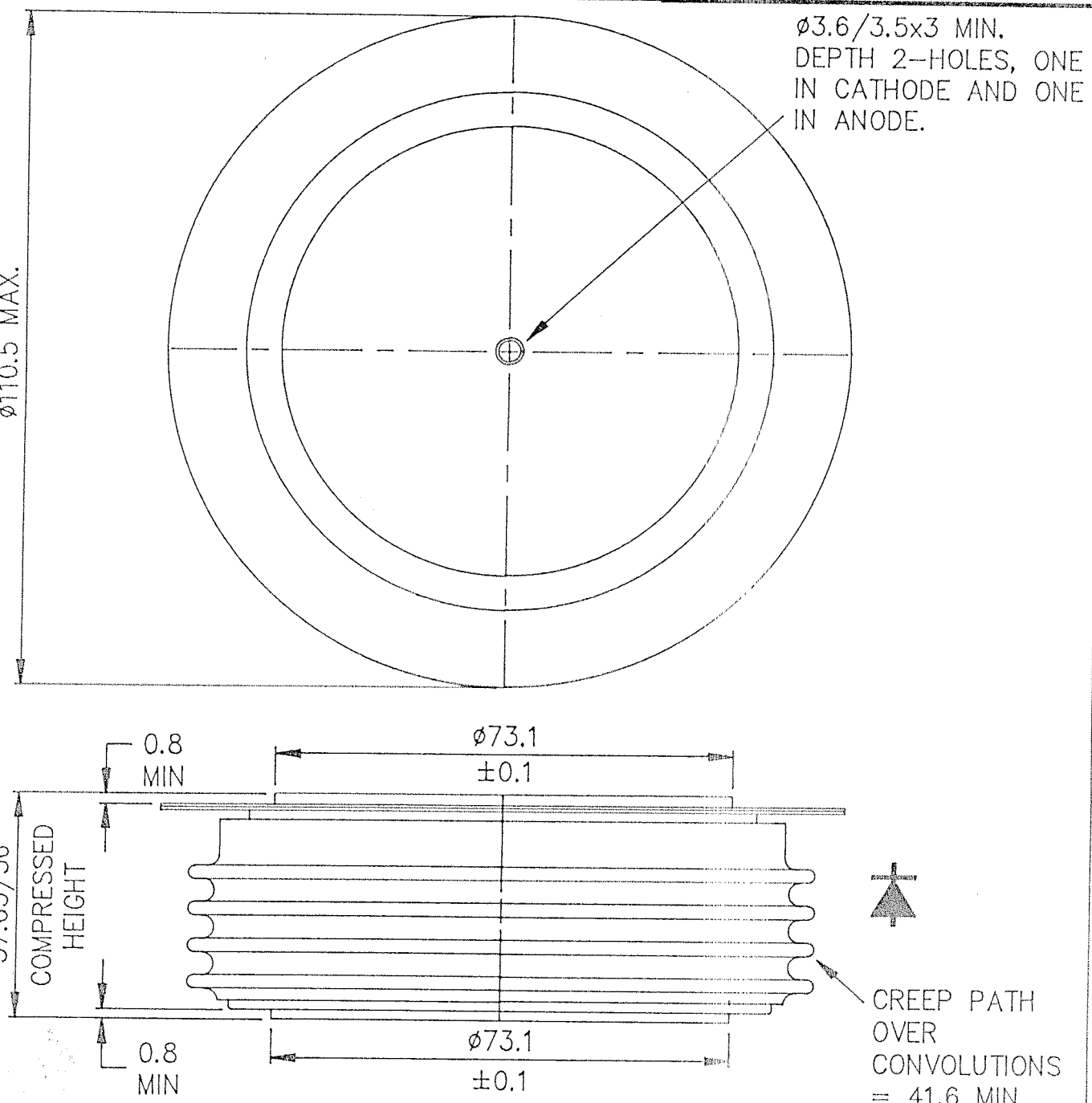


INTERNATIONAL OUTLINE No.
G.A. DWG No. 159B100H601
WEIGHT. 1.7kg
FINISH. NICKEL PLATE

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±1000kgf. (37±10kN)

TYPE NUMBER

CXC15C
CXC20C
CXC21C
CXC30C
CXC32C



ISS	REVISIONS
4	13-09-90 REDRAWN ON CAD HDN

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

SCALE 1/1
DRAWN HDN

WESTCODE SEMICONDUCTORS LTD.,
P.O. BOX 57, CHIPPENHAM, WILTSHIRE, SN15 1JL, ENGLAND.
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