

Rectifier Diode Stud

Types W0508S/RX040 to W0508S/RX150

The data sheet on the subsequent pages of this document is a scanned copy of existing data for this product.
(Rating Report 87NR26 Issue 1)

This data reflects the old part number for this product which is: **SW02-15PHN/R300**.
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 SA outline drawing (W23) in datasheet
No reverse recovery information available
Device no longer available for grade 02 (200V V_{RRM}/V_{DRM})

The following links will direct you to the appropriate outline drawings
[Outline W23](#) – 3/4" Glass and metal stud
[Outline W27](#) – 3/4" Glass and metal stud removed

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			
W0508	S/RX	◆◆	0
Fixed Type Code	S/RA – 3/4" Glass and metal stud S/RB – 3/4" Glass and metal stud removed	Voltage code $V_{RRM}/100$ 04-15	Fixed Code
Typical Order Code: W0508SA060, Normal polarity 3/4" Glass and metal stud, 600V V_{RRM}/V_{DRM}			

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In the interest of product improvement, Westcode reserves the right to change specifications at any time without prior notice.

Devices with a suffix code (2-letter, 3-letter or letter/digit/letter combination) added to their generic code are not necessarily subject to the conditions and limits contained in this report.

QUALITY EVALUATION LABORATORY

Rating Report: 87NR26

Date: 24th November, 1987

Origin:

Pages: 9

Diode Type SW02-15PHN/R300

Written by: *inbwjundp* Checked: *inbwj* Approved: *B. J. 2/11*

This diode consists of a diffused 24 mm diameter silicon slice mounted under spring pressure in a stud base, top hat housing with a flexible lead.

This Rating Report supersedes Rating Report No. 79NR18.

Provisional Ratings and Characteristics

Ratings

Voltage Grades	: 02-15
V_{RSM}	: 300-1600V
V_{RRM}	: 200-1500V
$I_{F(AV)}$: Single phase; 50 Hz, 180° half sinewave, $T_C = 100^\circ C$: 375A
$I_{F(rms)}$ max.	: 597A
$I_{F d.c.}$ max.	: 560A
I_{FSM} : t = 10 ms half sinewave; T_J (initial) = 180°C ; $V_{RM} = 0.6V_{RRM(MAX)}$: 5500.
I_{FSM} : t = 10 ms half sinewave; T_J (initial) = 180°C ; $V_{RM} = 10V$: 6050A
I^2t : t = 10 ms; T_J (initial) = 180°C; $V_{RM} = 0.6V_{RRM(MAX)}$: $1.51 \times 10^5 A^2S$
I^2t : t = 10 ms; T_J (initial) = 180°C; $V_{RM} \leq 10V$: $1.83 \times 10^5 A^2S$
I^2t : t = 3 ms; T_J (initial) = 180°C; $V_{RM} \leq 10V$: $1.35 \times 10^5 A^2S$
T_C Operating Range	: -40 to +180°C
T_{stg} Non-operating	: -40 to +200°C

Characteristics

(Maximum values unless otherwise stated)

V_D :	$T_J = 180^\circ\text{C}$:	0.95V
r_s :	$T_J = 180^\circ\text{C}$:	0.75mohms
V_{FM} :	$I_{FM} = 1180\text{A}$	$T_{VJ} = 180^\circ\text{C}$:	1.84V
R_{th} (J-C)			:	0.13°C/W
R_{th} (C-HS)			:	0.04°C/W
I_{RRM} :	$T_J = 180^\circ\text{C}$	$V_{RM} = V_{RRM}$ (MAX)	:	15mA
Q_{rr} :) $I_{FM} =$: dI/dt :	:	
) $V_{RM} :$	$T_{VJ} =$:	
t_{rr})			:	
Mounting torque			:	2.5 - 2.77 Kg.m
Outline drawing			:	100A281
JEDEC Outline No.			:	

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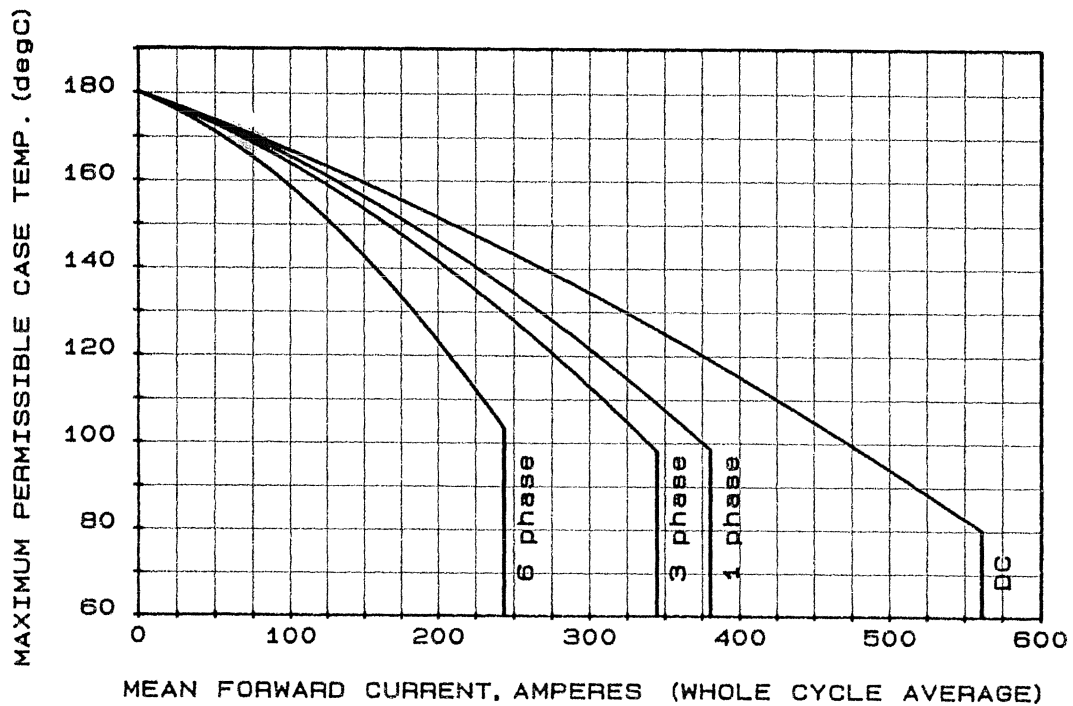
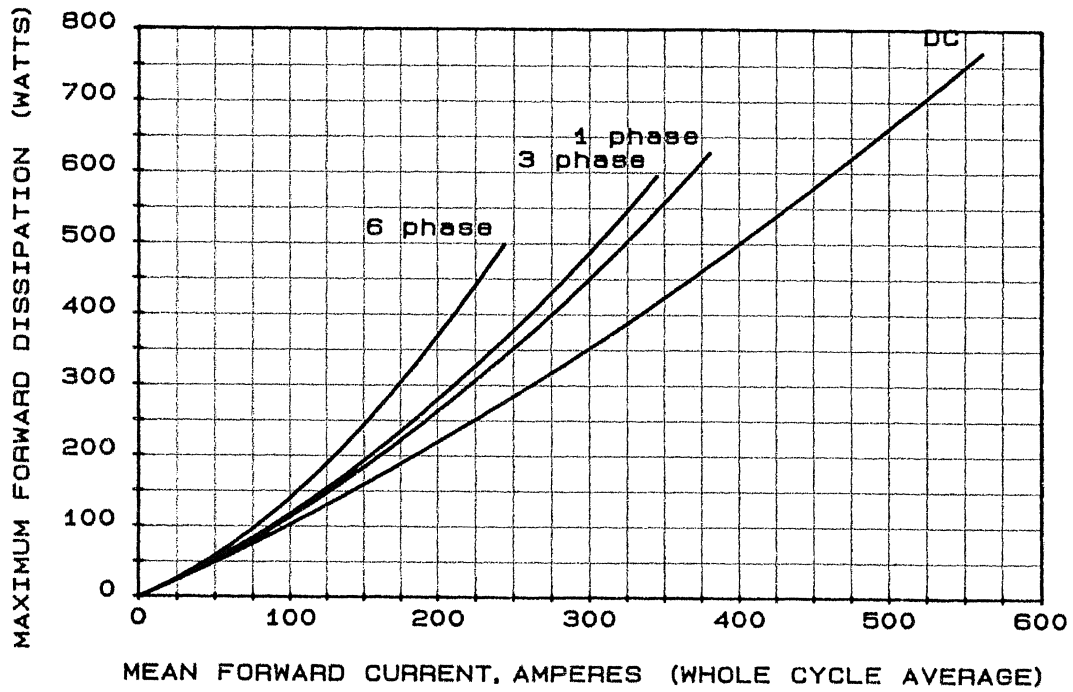
Changes to Rating Report No. 79NR18

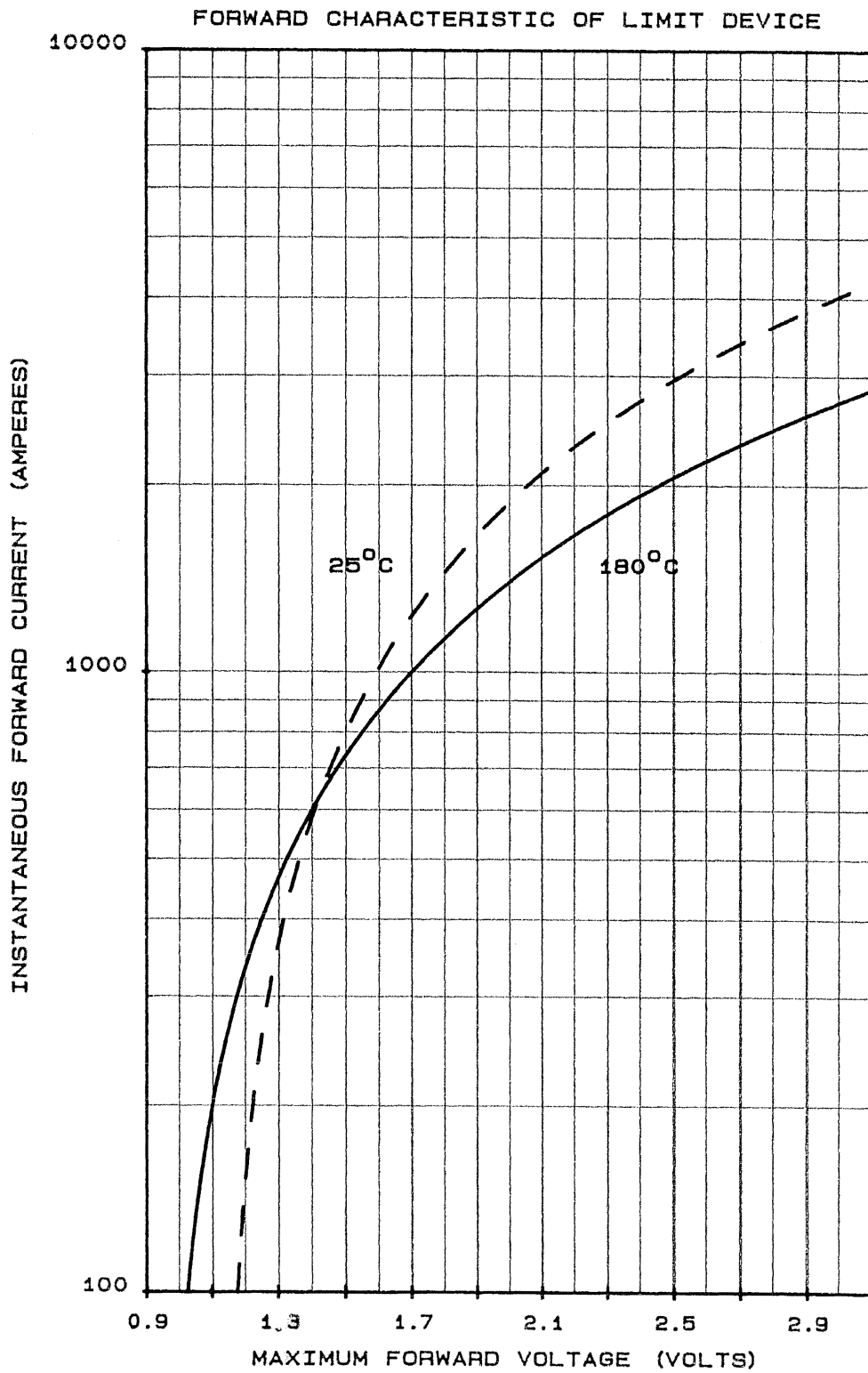
- p1 V_{RWM} omitted
 I_F DC(MAX) changed
 I^2t , corrected
 T_C (operating range) MIN reduced to -40°C
- p4 V_{RWM} omitted
- pp5, 6, 7,8 Re-drawn
- p9 Updated

Voltage Ratings

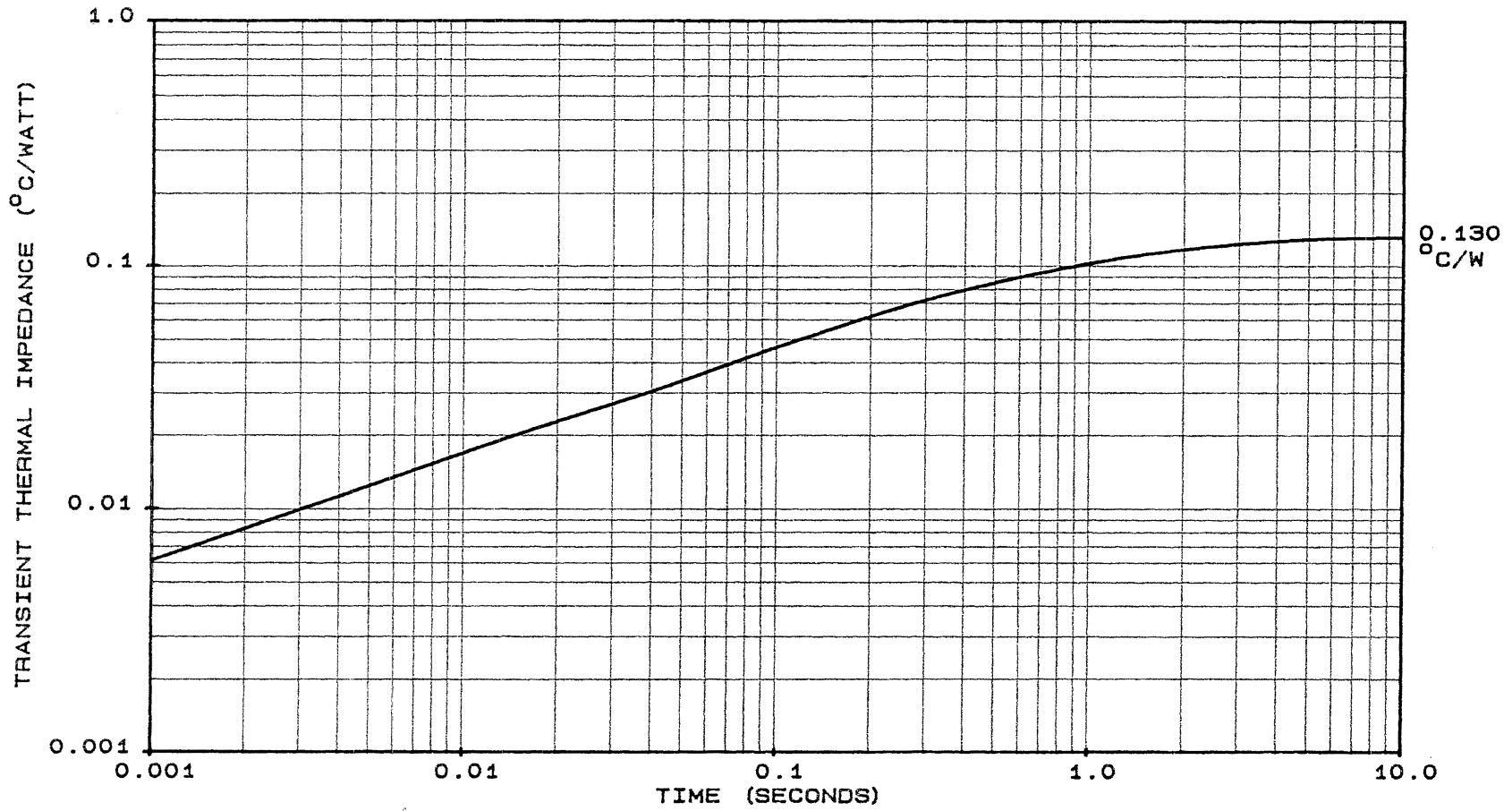
Voltage Class	V_{RRM} V	V_{RSM} V
02	200	300
04	400	500
06	600	700
08	800	900
10	1000	1100
12	1200	1300
14	1400	1500
15	1500	1600

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

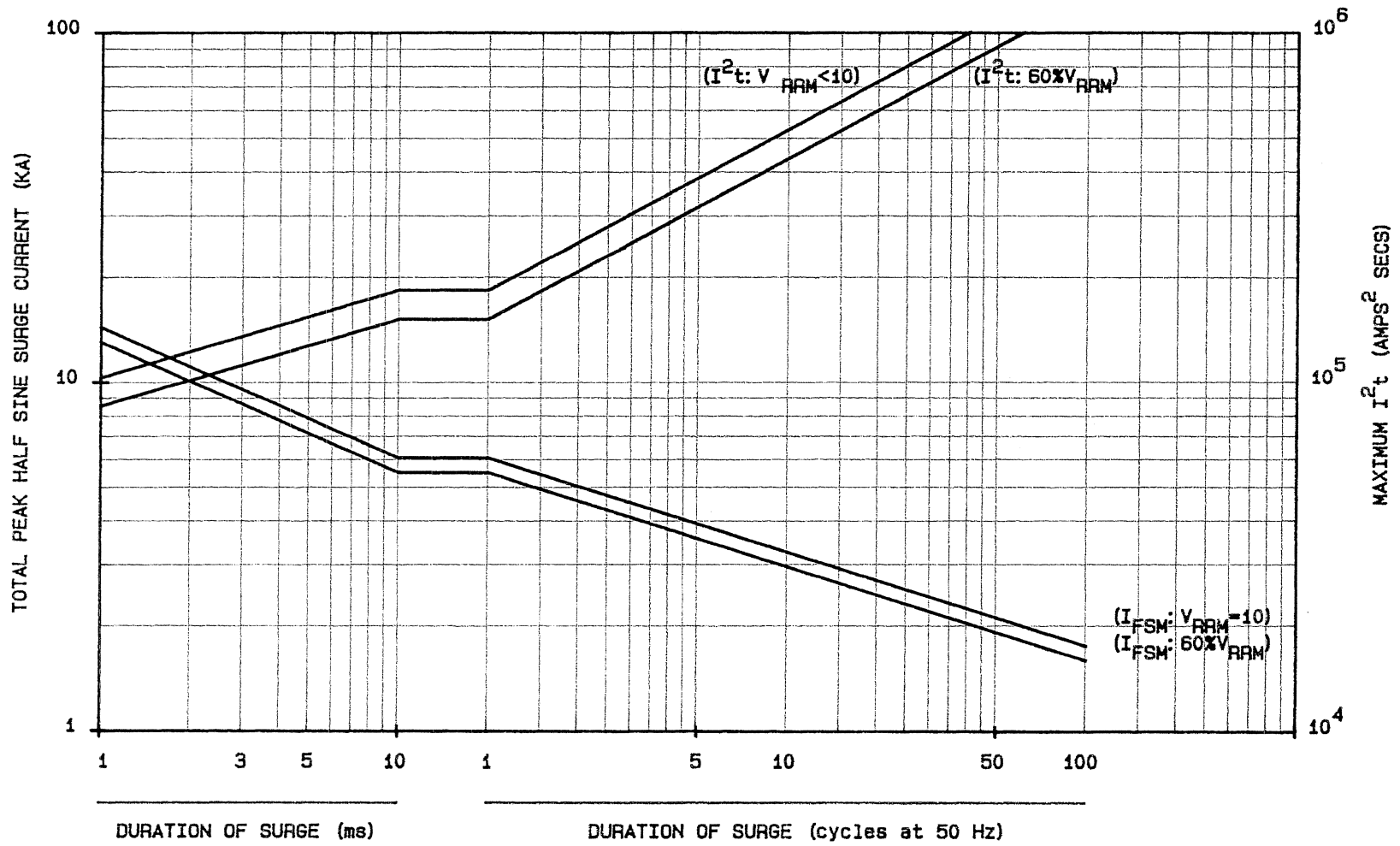




JUNCTION TO CASE TRANSIENT THERMAL IMPEDANCE



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



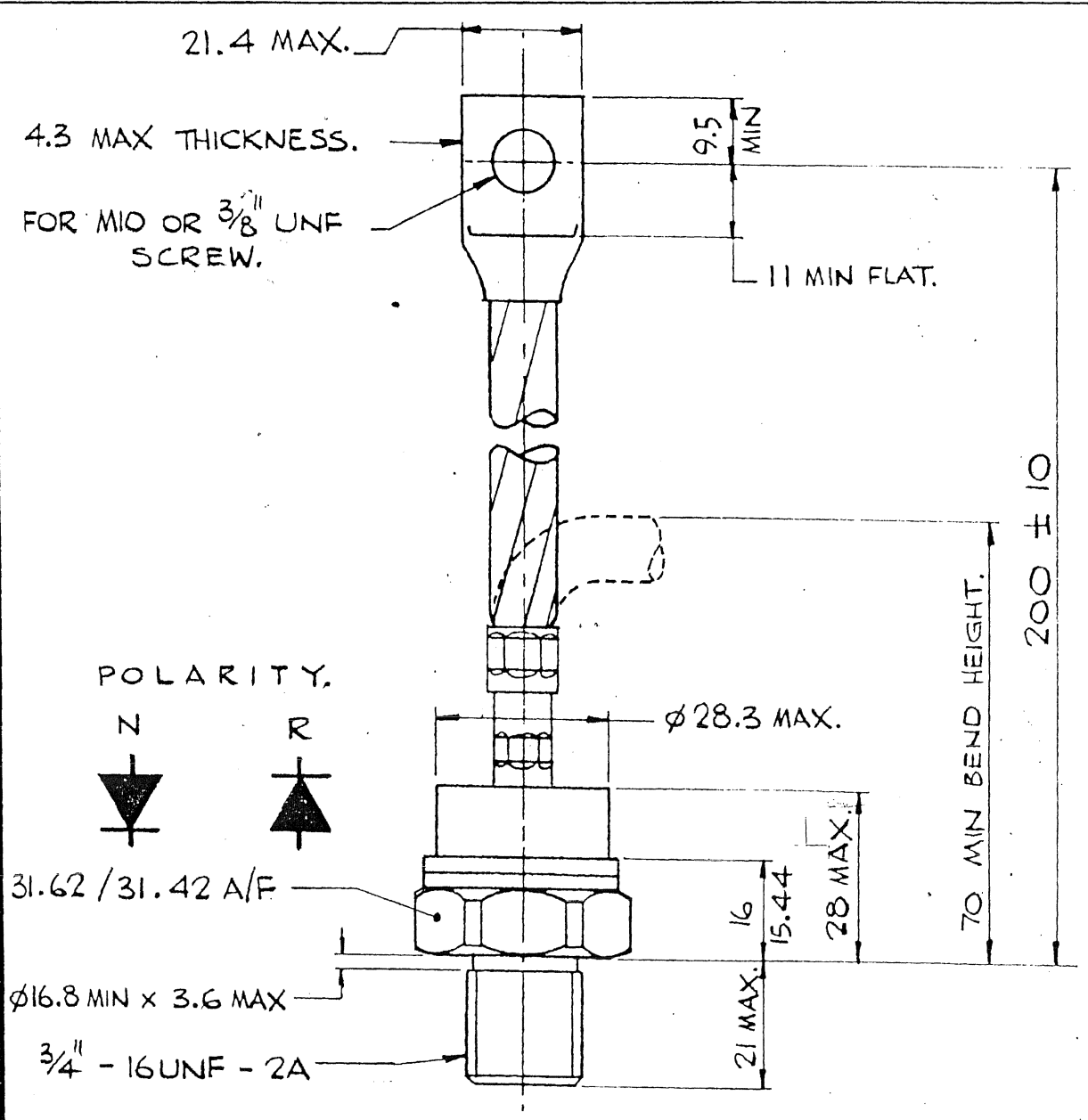
SCALE	1/1
DRN	llb
CHKD	
APPD	
S	A
S	NI

INTERNATIONAL OUTLINE No.
 WEIGHT. 250 GRAMS. - 9 -
 FINISH. BRIGHT NICKEL PLATE.
 DEVICE MARKING INCLUDES MONOGRAM, TYPE No., SPEC.
 No. AND POLARITY SYMBOL.

DIODE TYPE NUMBER
 PHN/R170, 300, 400.

DEVICE MOUNTING:
 MOUNTING TORQUE TO BE
 27 - 24.5 Nm (2.77 - 2.5 kgf m).
 THREAD MUST NOT BE LUBRICATED.

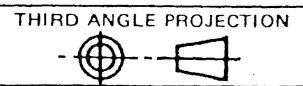
G.A. DRG. No. 102A216H05



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 SEMICONDUCTORS

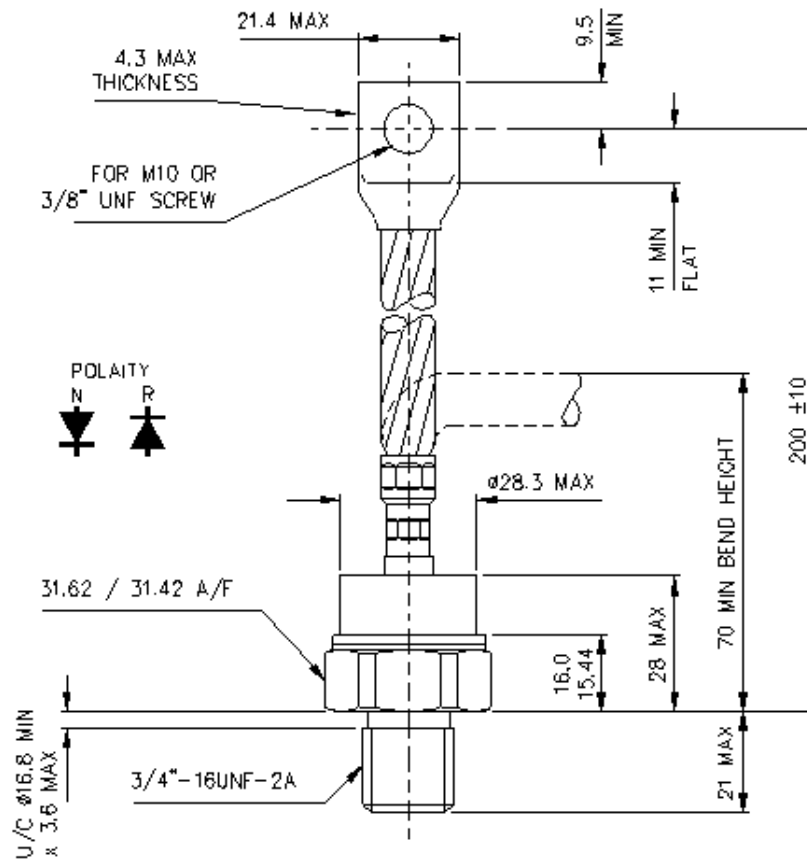


DIMNS. IN MILLIMETRES

DRG. No.
 100A281

ISS	REVISIONS
1	11.9.78
4	12.12.79 M806 REDRAWN.
	DRG N° WAS 100A257. llb
5	27.11.84 M1218 FIN WAS ET llb

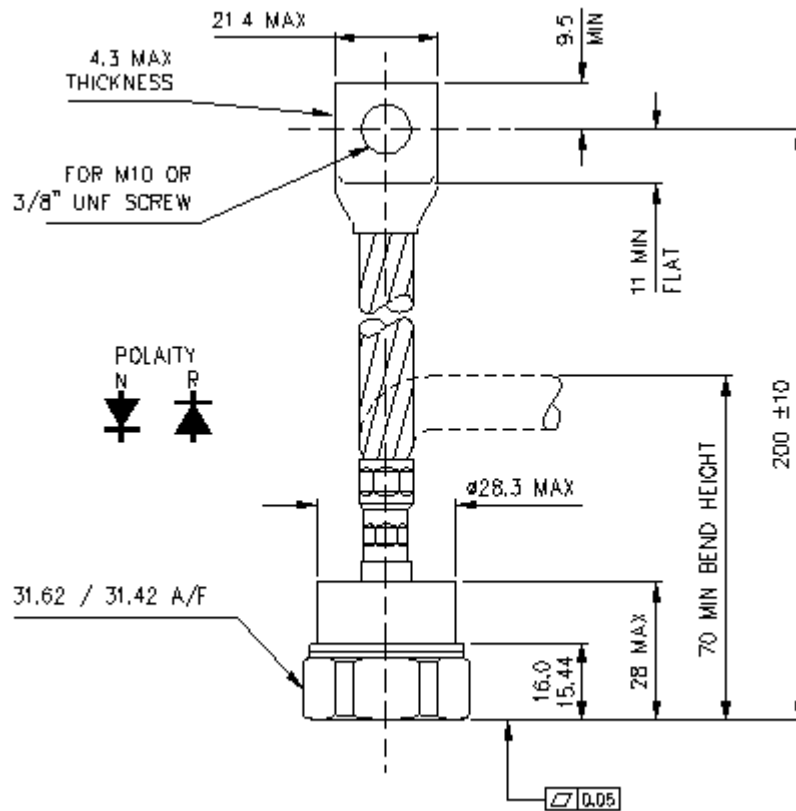
Drawing Number – W23
Outline Number – 100A281



Weight 250g

Drawing Number – W27
Outline Number – 100A284

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Weight 250g