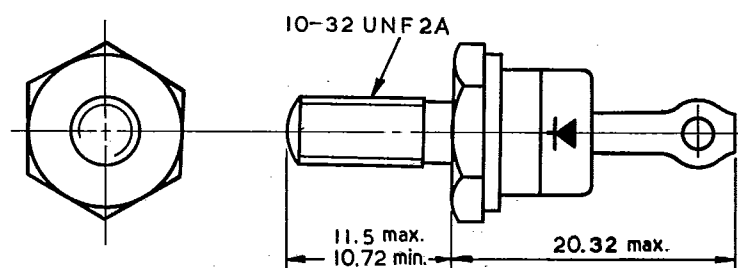


BRITISH STANDARDS INSTITUTION 2 PARK STREET, LONDON W1A 2BS		BS 9331 N039 to 046 ISSUE 1, JUNE, 1974
ELECTRONIC COMPONENTS OF ASSESSED QUALITY : DETAIL SPECIFICATIONS		
Outline and dimensional data (Third angle projection)		MEDIUM CURRENT RECTIFIER DIODE
		FULL ASSESSMENT LEVEL
BS 9331 N039, 040, 041, 042 — stud cathode BS 9331 N043, 044, 045, 046 — stud anode		MANUFACTURER'S TYPE NUMBER AS SHOWN IN BS 9002
All dimensions in millimetres For detail dimensions see BS 3934 S0-10A 10-32 nut and 2BA washer are supplied with the device		3A 300 V, 600 V, 900 V, 1200 V HERMETICALLY SEALED

1. Limiting conditions of use (not for inspection purposes)

Absolute maximum values

Voltage ratings

V_{RWM}	Crest working reverse voltage	As Table 1 Column 2
V_{RRM}	Repetitive peak reverse voltage	As Table 1 Column 3
V_{RSM}	Non-repetitive peak reverse voltage	As Table 1 Column 3
V_R	Continuous reverse voltage	As Table 1 Column 2

Table 1. Voltage ratings

1	2	3
Type number	V_{RWM} V_R	V_{RRM} V_{RSM}
	V	V
N039	200	300
N043	200	300
N040	400	600
N044	400	600
N041	600	900
N045	600	900
N042	800	1200
N046	800	1200

BS 9331 N039 to 046
Issue 1, June, 1974

Current ratings

$I_{F(AV)}$	Mean forward current (at $T_{case} = 125^{\circ}C$)	3.0 A
$I_{F(AV)}$	Mean forward current (up to $T_{case} = 75^{\circ}C$)	6.0 A
I_{FRM}	Repetitive peak forward current	20.0 A
I_{FSM}	Non-repetitive forward surge current, peak of half-sine wave at $T_{case} = 150^{\circ}C$	40.0 A
I_F	Continuous forward current	6.0 A

De-rating curve

$I_{F(AV)}$ and I_F against T_{amb} and T_{case} See Fig. 1

Thermal ratings

T_{case}	Maximum and minimum case temperature at which the above voltage ratings apply	$-55^{\circ}C$ to $150^{\circ}C$
T_{stg}	Maximum and minimum storage temperature	$-55^{\circ}C$ to $150^{\circ}C$

Mechanical ratings

Maximum torque on nut	1.7 Nm
Minimum torque for good thermal contact	0.9 Nm

2. Characteristics (not for inspection purposes).

All characteristics at $25^{\circ}C$ unless otherwise stated

V_F	Maximum forward voltage at $I_F = 6$ A	1.7 V
I_{RM1}	Maximum peak reverse current at the rated maximum crest working reverse voltage V_{RWM} from Table 1 Column 2	10 μ A
I_{R1}	Maximum reverse current at the rated maximum continuous reverse voltage V_R from Table 1 Column 2	10 μ A
I_{RM3}	As I_{RM1} but at $100^{\circ}C$	200 μ A
I_{R3}	As I_{R1} but at $100^{\circ}C$	200 μ A

3. Marking

- (1) Each diode shall bear the following marking:
 - a. An arrow graphical symbol, pointing towards the cathode.
 - b. The manufacturer's type designation.
- (2) Each package containing one or more of these diodes shall bear the marking 'b' above and in addition:
 - c. The factory identification code (from BS 9002).
 - d. The date code.
 - e. The number of this detail specification, i.e. BS 9331 N ... Issue 1.

4. Related documents

BS 3934, 'Dimensions of semiconductor devices'.
BS 6001, 'Sampling procedures and tables for inspection by attributes'.
BS 9000, 'General requirements for electronic components of assessed quality'.
BS 9300, 'Semiconductor devices of assessed quality: Generic data and methods of test'.
BS 9331, 'Rules for the preparation of detail specifications for medium current rectifier diodes'.

5. Ordering information

Orders for this diode shall contain the following minimum information:

.....(Qty) Rectifier diode type conforming to BS 9331 N ... Issue 1 dated June 1974.