

# DIODE & RESISTOR MODULES

S	REVISED PER ECN8124	JRD	SDH	09-15-03
R	REVISED PER ECN7622	JRD	SDH	09-20-02
P	REVISED PER ECN7500	JRD	SDH	08-28-02
N	REVISED PER ECN7234	JRD	SDH	07-08-02
12	REVISED PER ECN4846	JRD	SDH	07-02-01
11	REVISED PER ECN4418	AGB	TMN	08-20-99
10	REVISED PER ECN4411	SAF	TMN	08-11-99
9	REVISED PER ECN4336	SAF	TMN	04-01-99
8	REV. 8 PER (ECN3862)	NLL	DR	12-11-97
7	ADDED INTERNAL RESISTOR PART NOS TO FCI CAT. NO. RBR20-8-9-10 & -11 ON SHT.4 (ECN3841)	NLL	DR	11-14-97
6	REV PER (ECN3790)	DAF	WJW	09-10-97
5	REVISED AND REDRAWN. DWG SIZE WAS 'E'. ADDED CATALOG NO.RBR20-0 (S280W555-700) KIT ASSY. SEE REV. REF. PRINT. (ECN3636)	FDH	JJK	11-13-96
REV	REVISION DESCRIPTION	BY	CHKD	DATE

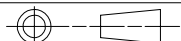
SUPERSEDES: SE95036-4

## DIODE AND RESISTOR MODULES

CAT NO. RB\_20-\_\_ (SEE TABLE)

LINEAR MEASURE: INCH mm INCH [mm]

THIRD ANGLE PROJECTION



- TOLERANCES -  
UNLESS OTHERWISE SPECIFIED

NO OF DECIMAL PLACES IN INCHES	INCH [mm]
ONE PLACE	±.1 [±3]
TWO PLACES	±.02 [±0.5]
THREE PLACES	±.005 [±0.13]

ANGLES ±1°

DWG RELEASED TO CENTRAL FILE 11-16-92

CAGE NO. 09922 ECN 3636 PC 861

FRAMATOME CONNECTORS USA INC.



**SOURIAU**  
Connection Technology

DRWN	GJD	08-18-92
CHKD	JDA	11-11-92
DSGN	JDA	11-11-92
MKT	NV	11-11-92
QC	RF	11-11-92

DRAWING SCALE NONE

DRAWING NO REV

SA95036 S

SHEET 1 OF 6

NOTES: UNLESS OTHERWISE SPECIFIED;

1 INTERPRET THIS DRAWING IN ACCORDANCE WITH ASME Y14.5M-1994.

2 ALL DIODE AND RESISTOR MODULES ACCOMMODATE THE FCI SIZE 20 FEEDBACK MODULE, CATALOG NO. RBTB20-8. INSTALLATION CAN BE AT EITHER END OF THE MODULE. SEE FIGURE 1.

3 THE FOLLOWING INFORMATION IS INK STAMPED ON ALL MODULES, (EXCEPT RBR20-0 KIT) COLOR WHITE:

- a. BOEING PART NUMBER, SEE SHEET 2.
- b. SOURIAU CAGE (FCSM), DATE, LOCATION CODE, AND NAME.
- c. RESISTOR SYMBOL WITH LETTERS "A" AND "B" ON RESISTOR MODULES.
- d. DIODE SYMBOL WITH LETTERS "A" AND "B" ON DIODE MODULES.
- e. SOURIAU CATALOG NUMBER, SEE SHEET 2.
- f. LETTERS "A" AND "B". "A" DENOTES ANODE END.

4 RBTB20-8 MODULE GROMMET SEALS TO THE FOUR  $\phi$ .062 [1,57] PINS.

5 DIFFERENT LENGTH LATCHES PROVIDE POLARIZATION.

6 RBR20-0 (S280W555-700) RESISTOR/DIODE KIT CONSISTS OF 10 HOUSINGS, 20 PIN CONTACTS AND ASSEMBLY INSTRUCTIONS FOR ASSEMBLY AT CUSTOMER.

7 CATALOG NUMBER RESERVATION:

RESISTOR MODULES: RBR20-1 (S280W555-701) THRU RBR20-49 (S280W555-749)

DIODE MODULES: RBD20-0 (S280W555-750) THRU RBD20-49 (S280W555-799)

MATERIAL:

BODY: GLASS REINFORCED THERMOPLASTIC, UL94V-0, COLOR BLACK

FILLER: EPOXY POTTING COMPOUND, COLOR BLACK

PIN CONTACTS: COPPER ALLOY

INTERNAL COMPONENT: RESISTOR OR DIODE, SEE SHEET 2

FINISH:

PIN CONTACTS: 50 MICRONS [1,27 MICRONS] MIN HARD GOLD OVER  
50 MICRONS [1,27 MICRONS] MIN NICKEL ALL OVER.

PERFORMANCE CHARACTERISTICS:

ELECTRICAL:

RESISTOR MODULE: RESISTANCE, MEASURED PIN CONTACT TO PIN CONTACT, IS WITHIN THE RESISTANCE RANGE SHOWN IN TABLE I, SHEET 2.

DIODE MODULE: TESTED FOR DIODE ORIENTATION AND CONDUCTANCE.

QUALIFICATION TESTING IS PERFORMED TO THE REQUIREMENTS OF BOEING SPEC. S280W555.

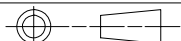
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REV	REVISION DESCRIPTION	BY	CHKD	DATE

**DIODE AND RESISTOR MODULES**

CAT NO. RB\_20-\_\_ (SEE TABLE)

LINEAR MEASURE: INCH mm INCH [mm]

THIRD ANGLE PROJECTION



- TOLERANCES -  
UNLESS OTHERWISE SPECIFIED

NO OF DECIMAL PLACES IN INCHES	INCH [mm]
--------------------------------	-----------

ONE PLACE	$\pm$ .1 [ $\pm$ 3]
-----------	---------------------

TWO PLACES	$\pm$ .02 [ $\pm$ 0,5]
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THREE PLACES	$\pm$ .005 [ $\pm$ 0,13]
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ANGLES  $\pm$ 1°

DRWN GJD 08-18-92

CAGE NO. 09922 ECN 3636 PC 861

FRAMATOME CONNECTORS USA INC.

APPROVAL	DRWN	GJD	08-18-92
	CHKD	JDA	11-11-92
	DSGN	JDA	11-11-92
	MKT	NV	11-11-92
	QC	RF	11-11-92

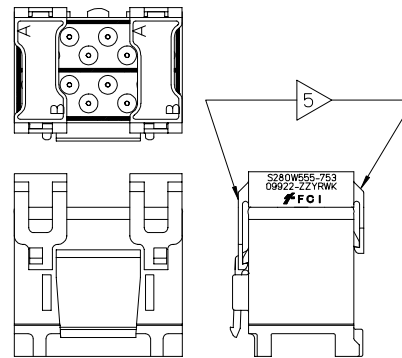
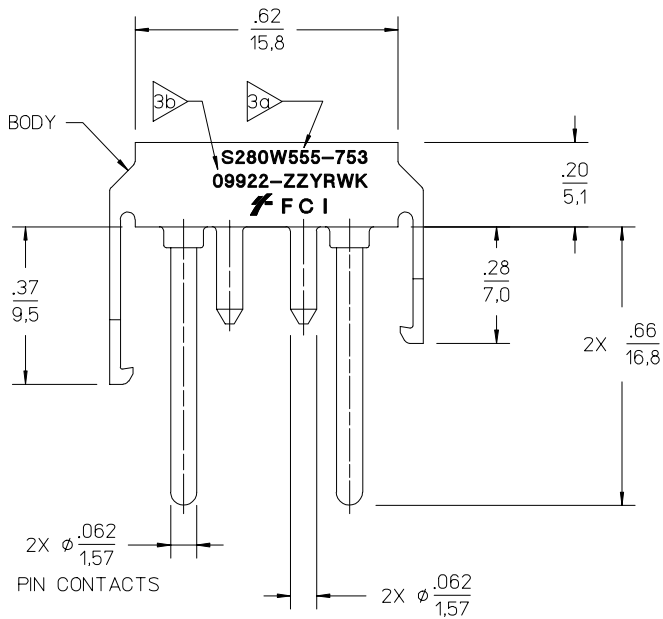
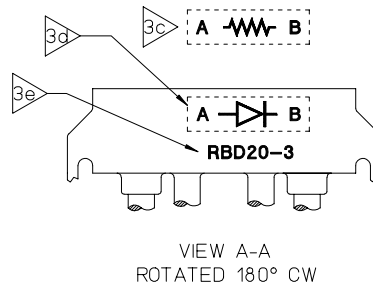
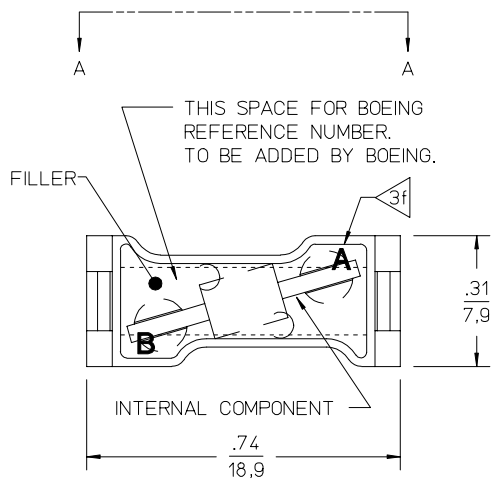
DRAWING SCALE NONE

DRAWING NO	REV
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SHEET 2 OF 6





DIODE MODULE, CATALOG NO. RBD20-3 SHOWN

FIGURE 1  
 2 DIODE/RESISTOR MODULE INSTALLED ON  
 FEEDBACK MODULE CATALOG NO. RBTB20-8  
 SCALE 1:1



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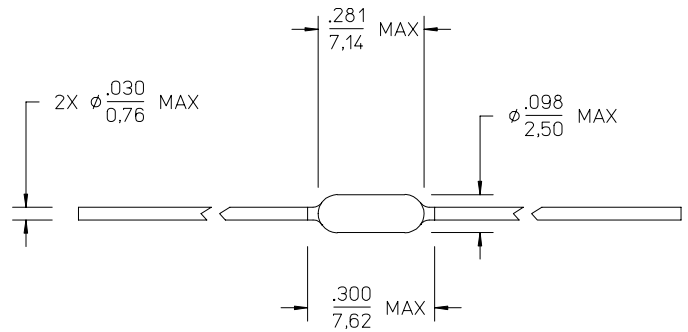
**DIODE AND RESISTOR MODULES**

CAT NO. RB_20-__ (SEE TABLE)		DWG RELEASED TO CENTRAL FILE 11-16-92		A P P R O V A L	DRWN GJD 08-18-92
		CAGE NO. 09922	ECN 3636 PC 861		CHKD JDA 11-11-92
		FRAMATOME CONNECTORS USA INC.			DSGN JDA 11-11-92
					MKT NV 11-11-92
				QC RF 11-11-92	DRAWING SCALE 2:1
				DRAWING NO	REV
				SA95036	S
				SHEET 3 OF 6	



LINEAR MEASURE: INCH mm INCH [mm]	
THIRD ANGLE PROJECTION	
- TOLERANCES - UNLESS OTHERWISE SPECIFIED	
NO OF DECIMAL PLACES IN INCHES	INCH [mm]
ONE PLACE	±.1 [±3]
TWO PLACES	±.02 [±0.5]
THREE PLACES	±.005 [±0.13]
ANGLES ±1°	

TABLE I - RESISTOR MODULES 		
FCI CATALOG NO.	BOEING PART NO.	INTERNAL RESISTOR PART NO.
RBR20-0	S280W555-700	
RBR20-1	S280W555-701	
RBR20-2	S280W555-702	RLR07C4301GS (4.3K ±2%, 1/4W)
RBR20-3	S280W555-703	RLR07C1202GS (12K ±2%, 1/4W)
RBR20-4	S280W555-704	RLR07C4992FS (49.9K ±1%, 1/4W)
RBR20-5	S280W555-705	RLR07C71R5FS (71.5 ±1%, 1/4W)
RBR20-6	S280W555-706	RLR07C1002FS (10K ±1%, 1/4W)
RBR20-7	S280W555-707	RLR07C1801GS (1.8K ±2%, 1/4W)
RBR20-8	S280W555-708	RLR07C1501FR (1.5K ±1%, 1/4W)
RBR20-9	S280W555-709	RNC60H3001DR (3K ±0.5%, 1/4W)
RBR20-10	S280W555-710	RNC55H1003FR (100K ±1%, 1/10W)
RBR20-11	S280W555-711	RNC60H2003FS (200K ±1%, 1/4W)
RBR20-12	S280W555-712	RLR07C3160FR (.316K ±1%, 1/4W)
RBR20-13	S280W555-713	RLR07C4021FS (4.02K ±1%, 1/4W)
RBR20-14	S280W555-714	RWR81S4R99FS (4.99 ±1%, 1W)
RBR20-15	S280W555-715	RNC60H90R9BS (90.9 ±.1%, 1/4W)
RBR20-16	S280W555-716	
RBR20-17	S280W555-717	
RBR20-18	S280W555-718	
RBR20-19	S280W555-719	
RBR20-20	S280W555-720	



RESISTOR DIMENSION LIMITATIONS

---	ALL REVISIONS RECORDED ON SHT. 1	---	---	-----
REV	REVISION DESCRIPTION	BY	CHKD	DATE

DIODE AND RESISTOR MODULES				
CAT NO. RBR20-__ (SEE TABLE)				
DWG RELEASED TO CENTRAL FILE 11-16-92				
CAGE NO. 09922		ECN 3636	PC 861	
FRAMATOME CONNECTORS USA INC.				
APPROVAL	DRWN	GJD 08-18-92		
	CHKD	JDA 11-11-92		
	DSGN	JDA 11-11-92		
	MKT	NV 11-11-92		
	QC	RF 11-11-92		
DRAWING SCALE: NONE				
DRAWING NO				REV
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SHEET 4 OF 6				



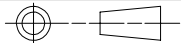
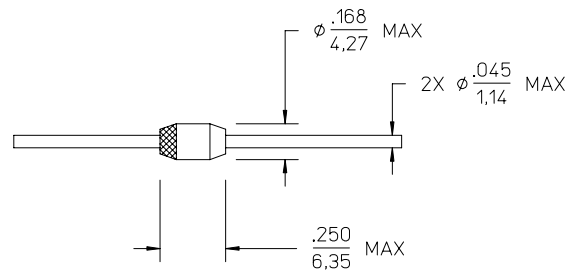
LINEAR MEASURE:	INCH mm	INCH [mm]
THIRD ANGLE PROJECTION		
		
- TOLERANCES - UNLESS OTHERWISE SPECIFIED		
NO OF DECIMAL PLACES IN INCHES	INCH [mm]	
ONE PLACE	±.1 [±3]	
TWO PLACES	±.02 [±0.5]	
THREE PLACES	±.005 [±0.13]	
ANGLES ±1°		

TABLE II - DIODE MODULES



FCI CATALOG NO.	BOEING PART NO.	INTERNAL DIODE PART NO.
RBD20-0	S280W555-750	
RBD20-1	S280W555-751	JANTX1N5618 (1 AMP)
RBD20-2	S280W555-752	JANTX1N6122A
RBD20-3	S280W555-753	JANTX1N5553 (3 AMP)
RBD20-4	S280W555-754	
RBD20-5	S280W555-755	
RBD20-6	S280W555-756	
RBD20-7	S280W555-757	
RBD20-8	S280W555-758	
RBD20-9	S280W555-759	
RBD20-10	S280W555-760	
RBD20-11	S280W555-761	
RBD20-12	S280W555-762	
RBD20-13	S280W555-763	
RBD20-14	S280W555-764	
RBD20-15	S280W555-765	
RBD20-16	S280W555-766	
RBD20-17	S280W555-767	
RBD20-18	S280W555-768	
RBD20-19	S280W555-769	
RBD20-20	S280W555-770	



DIODE DIMENSION LIMITATIONS

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**DIODE AND RESISTOR MODULES**

CAT NO. RBD20-\_\_ (SEE TABLE)

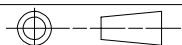
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FRAMATOME CONNECTORS USA INC.

LINEAR MEASURE: INCH mm INCH [mm]

THIRD ANGLE PROJECTION



- TOLERANCES -  
UNLESS OTHERWISE SPECIFIED

NO OF DECIMAL PLACES IN INCHES INCH [mm]

ONE PLACE ±.1 [±3]

TWO PLACES ±.02 [±0,5]

THREE PLACES ±.005 [±0,13]

ANGLES ±1°

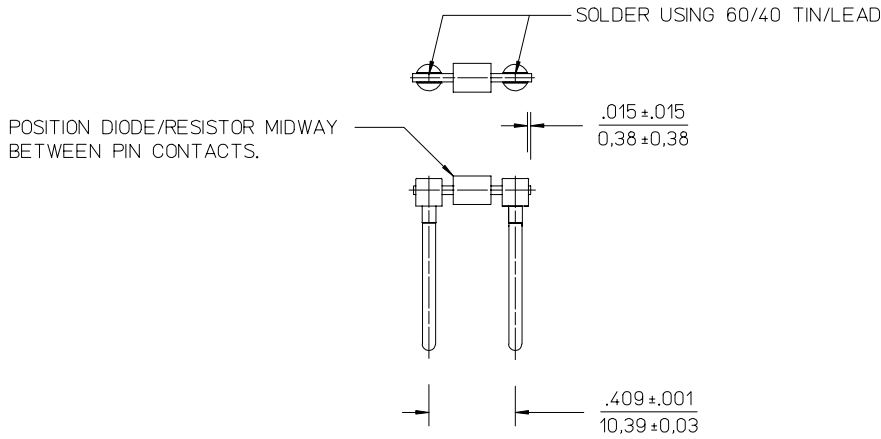
DRWN	GJD	08-18-92
CHKD	JDA	11-11-92
DSGN	JDA	11-11-92
MKT	NV	11-11-92
QC	RF	11-11-92

DRAWING SCALE: NONE  
DRAWING NO REV

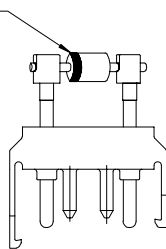
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SHEET 5 OF 6

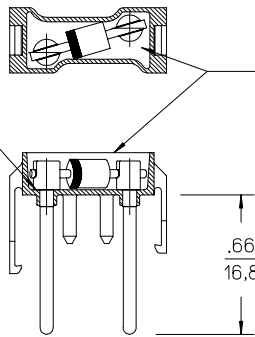




IF INSTALLING A DIODE ASSEMBLY, CATHODE END (MARKED BY END BAND) MUST BE AT THE SIDE OF THE MODULE WITH THE LONG LATCH.

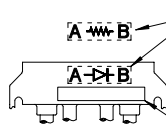
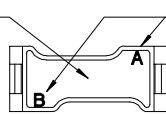


PIN CONTACT SHOULDERS TO BE BUTTED ON BOTTOM OF MODULE BODY.



COMPLETELY FILL MODULE CAVITY WITH LOCTITE E-60NC EPOXY COMPOUND CURE AT 150°±5°F [66°±3°C] FOR 30 MINUTES AT TEMPERATURE.

THIS SPACE FOR BOEING REFERENCE NUMBER, TO BE ADDED BY BOEING.



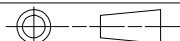
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### RESISTOR/DIODE KIT ASSEMBLY INSTRUCTIONS

CAT NO. RBR20-0

LINEAR MEASURE: INCH mm INCH [mm]

THIRD ANGLE PROJECTION



- TOLERANCES -  
UNLESS OTHERWISE SPECIFIED

NO OF DECIMAL PLACES IN INCHES	INCH [mm]
ONE PLACE	$\pm .1$ [ $\pm 3$ ]
TWO PLACES	$\pm .02$ [ $\pm 0,5$ ]
THREE PLACES	$\pm .005$ [ $\pm 0,13$ ]

ANGLES  $\pm 1^\circ$

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CAGE NO. 09922 ECN 3636 PC 861

FRAMATOME CONNECTORS USA INC.

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	CHKD	JDA	11-11-92
	DSGN	JDA	11-11-92
	MKT	NV	11-11-92
	QC	RF	11-11-92

DRAWING SCALE: NONE

DRAWING NO	REV
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