

T-11-15

BZY95/BZY96/Z2 SERIES

Hermetically Sealed Metal Package ■ Voltage Regulator Diode
Released to BS/CECC 9305-F082 ■ Voltage Range 3.0 to 400 Volts
1.5 Watt Steady State ■ 400 Watt Peak Power

APPLICATIONS

- A range of medium power zener and avalanche diodes available to BS 9305-F082 in a hermetically sealed DO1 package with both unipolar and bipolar configurations.

FEATURES

- T operating -55°C to +175°C
- Metal and glass package DO13 or DO1
- 400 Watt surge capability at 1 ms
- Excellent clamping capability
- Typical I_R less than 10 μ A above 10V
- Fast response time: typically less than 1.0ps from 0 volts to BV min.
- High temperature soldering guaranteed 300 C/.375" (9.5mm) lead length/5lb (2.3Kg) tension

MECHANICAL DATA

- Case: Hermetically sealed DO1 outline (alternative DO13)
- Finish: All external surfaces are corrosion resistant and leads solderable
- Identification: Body marked with Type No. and logo
- Weight: 1.9 grammes (approximately)

ELECTRICAL CHARACTERISTICS

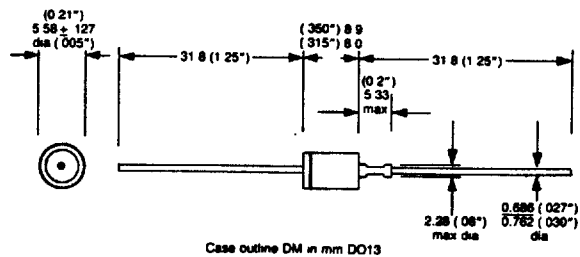
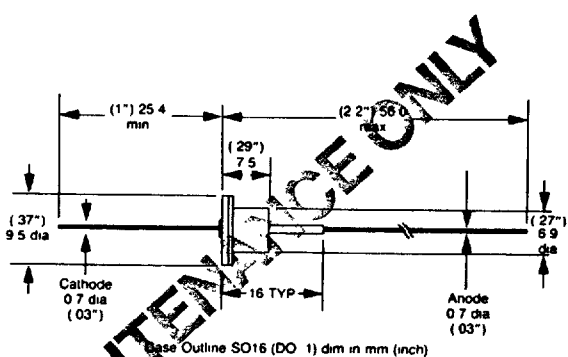
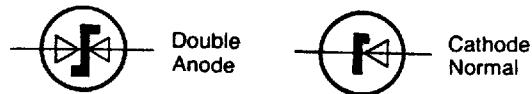
- Forward Voltage V_f 1.5V max. at $I_f = 1A$
- V_z measured with pulse = 20ms
- R_z determined with DC plus 10% superimposed AC @ 1KHz

OTHER TYPES AVAILABLE

IN1507 Thru IN1517* BS9300-C405 Thru C429 } For DO13 package add
 IN1518 Thru IN1528 BS9300-C841 Thru C849 } suffix A (BS9300-C405A)
 IN1765 Thru IN1802* IS4006 Thru IS4200
 IN2032 Thru IN2040 BZY95C10 Thru C75
 IN2214 BZY96C4V7 Thru C10
 IN3732

All electrical characteristics 25°C unless otherwise stated.

AVAILABLE IN THE FOLLOWING CONFIGURATIONS





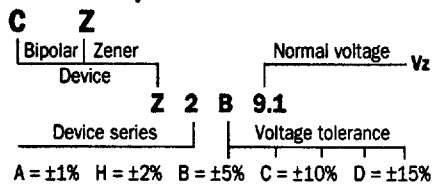
Electrical Characteristics @ 25°C

Industry Type	Semitron Type	Vz ± 5% Voltage Tolerance	Iz mA	Rz ohms		Max Ir at Vr		Temp Coef %/°C Typ
				Typ.	Max	µA	Volts	
	Z2B3.0	2.8-3.2	100	2	14	300	1.0	-0.08
	Z2B3.3	3.1-3.5	100	2	13	300	1.0	-0.07
	Z2B3.6	3.4-3.8	100	2	12	200	1.0	-0.06
	Z2B3.9	3.7-4.1	100	2	11	150	1.5	-0.05
	Z2B4.3	4.0-4.6	100	2	10	100	1.5	-0.04
	Z2B4.7	4.6-5.0	100	2	9	100	1.5	-0.015
BZY96C5V1	Z2B5.1	4.8-5.4	100	2	8	50	1.5	+0.01
BZY96C5V6	Z2B5.6	5.2-6.0	50	1.5	8	50	1.5	+0.02
	Z2B6.2	5.8-6.6	50	1.0	7	50	4.3	+0.03
	Z2B6.6	6.4-7.2	50	0.3	6	30	4.7	+0.04
	Z2B7.5	7.0-7.9	50	0.5	6	30	5.1	+0.05
	Z2B8.2	7.7-8.7	50	1.0	7	10	5.6	+0.06
	Z2B9.1	8.5-9.6	50	2	8	10	6.2	0 + .065
BZY96C10/BZY96C10	Z2B10	9.4-10.6	50	2	8	10	6.8	+0.07
BZY96C11	Z2B11	10.4-11.6	50	3	9	10	7.5	+0.07
BZY96C12	Z2B12	11.4-12.7	50	4	9	10	8.2	+0.075
	Z2B13	12.4-14.1	50	5	10	10	9.1	+0.075
	Z2B15	13.8-15.6	50	6	10	10	10.0	+0.08
	Z2B16	15.3-17.1	20	10	12	10	11.0	+0.08
	Z2B18	16.8-19.1	20	12	15	10	12.0	+0.08
	Z2B20	18.8-21.2	20	13	18	10	13.0	+0.085
	Z2B22	20.8-23.3	20	14	27	10	15.0	+0.09
	Z2B24	22.7-25.9	20	15	30	10	16.0	+0.09
	Z2B27	25.1-28.9	20	16	32	10	18.0	+0.095
	Z2B30	28.0-32.0	20	20	34	10	20.0	+0.095
	Z2B33	31.0-35.0	20	24	36	10	22.0	+0.10
	Z2B36	34.0-38.0	20	28	38	10	24.0	+0.10
	Z2B39	37.0-41.0	10	34	45	10	27.0	+0.10
	Z2B43	40.0-46.0	10	45	60	10	30.0	+0.105
	Z2B47	44.0-50.0	10	50	70	10	33.0	+0.105
	Z2B51	48.0-54.0	10	68	90	10	36.0	+0.105
	Z2B56	52.0-60.0	10	75	100	10	39.0	+0.105
	Z2B62	58.0-66.0	10	83	110	10	43.0	+0.11
	Z2B68	64.0-72.0	10	90	120	10	47.0	+0.11
	Z2B75	70.0-79.0	10	98	130	10	51.0	+0.11
	Z2B82	77.0-87.0	10	130	175	10	56.0	+0.11
	Z2B91	85.0-96.0	5	150	200	10	62.0	+0.11
	Z2B100	94.0-106	5	200	350	10	68.0	+0.11
	Z2B110	104.0-116.0	5	300	450	10	75.0	+0.11
	Z2B120	114.0-127.0	5	320	550	10	82.0	+0.11
	Z2B130	124.0-141.0	5	350	650	10	91.0	+0.11
	Z2B150	138.0-156.0	5	400	800	10	100.0	+0.11
	Z2B160	153.0-171.0	5	500	1000	10	110.0	+0.11
	Z2B180	168.0-191.0	5	700	1200	10	120.0	+0.11
	Z2B200	188.0-212.0	5	800	1700	10	130.0	+0.11
	Z2B400	380.0-420.0	1	2K	3K	10	300.0	+0.11

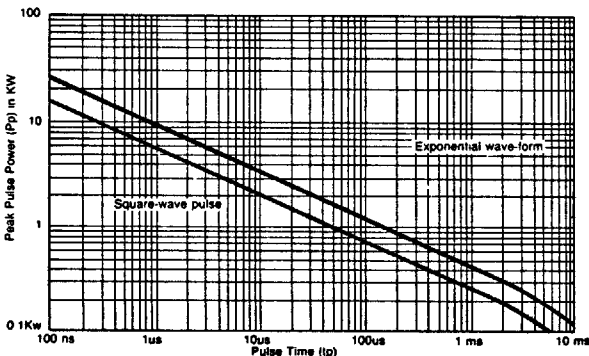
For BS device specify conforming to BS 9300 or BS 9305-F-082 issue 2.
Full specification available on request.
*For DO13 package to commercial spec. replace figure 2 with letter D.
i.e. ZDB9.1

FORWARD VOLTAGE V_F 1.5V max at I_F = 1A
V_Z measured with pulse = 20mS
R_Z determined with DC plus 10% superimposed AC @ 1KHz

Code Interpretation

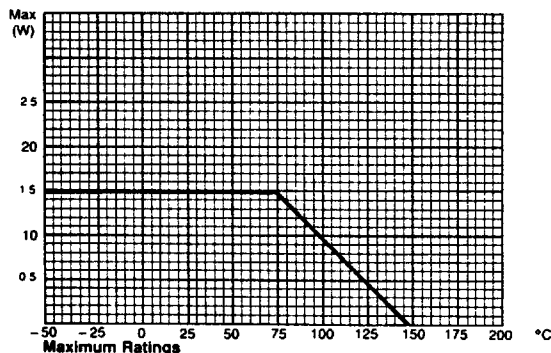


NON-REPETITIVE PEAK PULSE POWER RATING CURVE



Note. Peak power defined as peak voltage times peak current

MAXIMUM STEADY STATE DISSIPATION VERSUS CASE TEMPERATURE

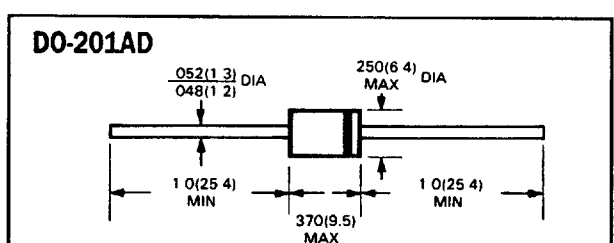
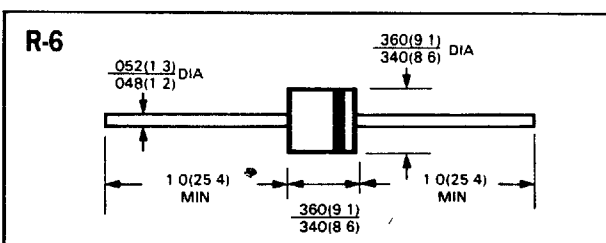
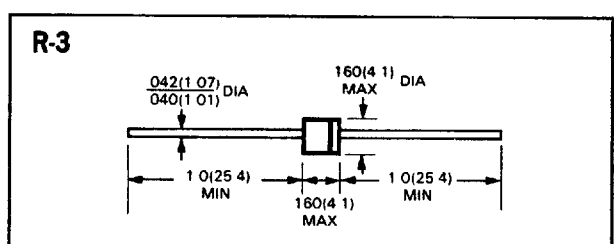
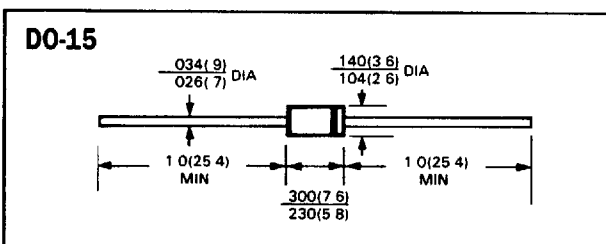
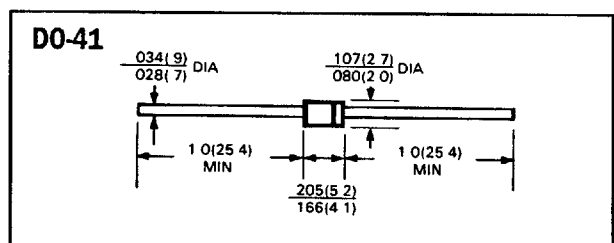
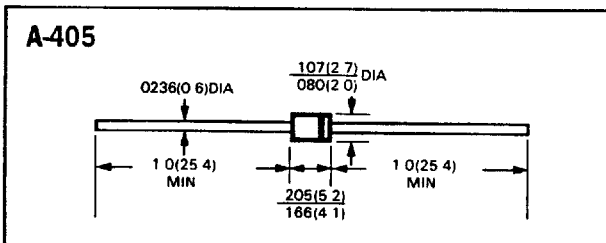
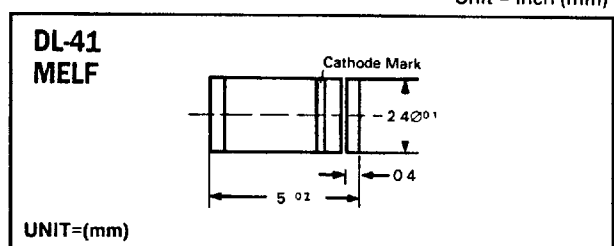
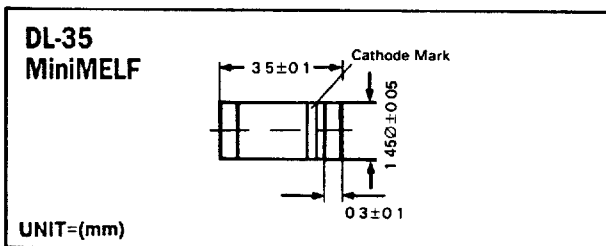


ZENERS, REFERENCE AND LIMITERS



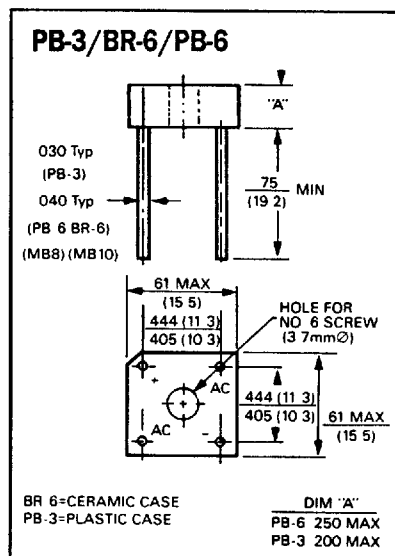
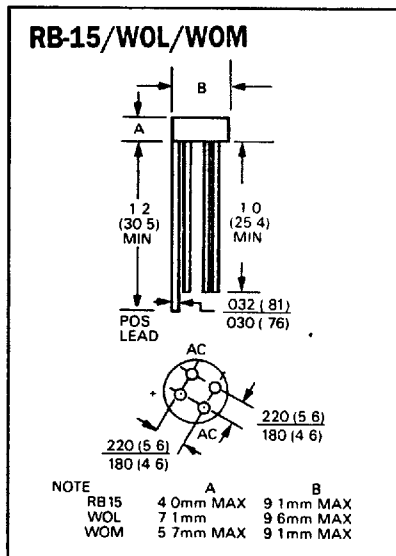
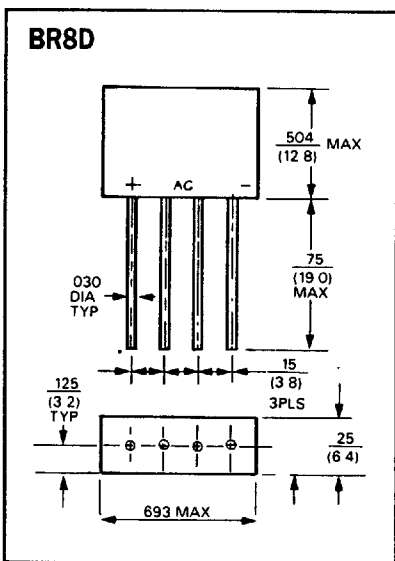
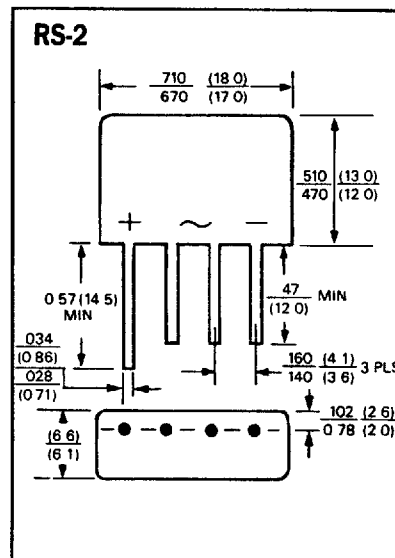
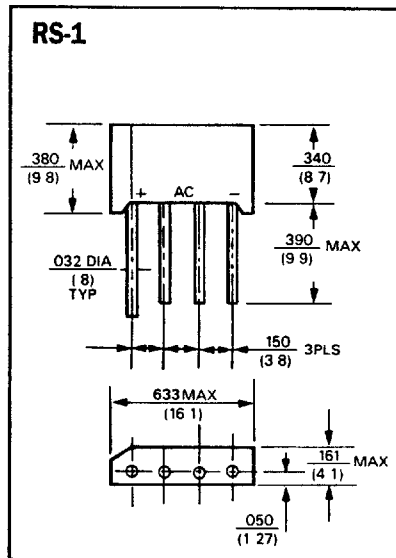
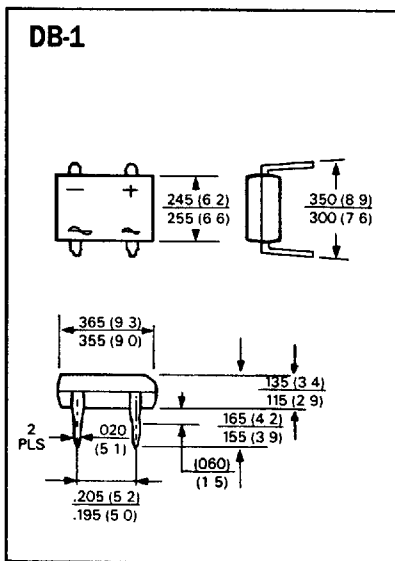
OUTLINE DRAWINGS

Unit = inch (mm)





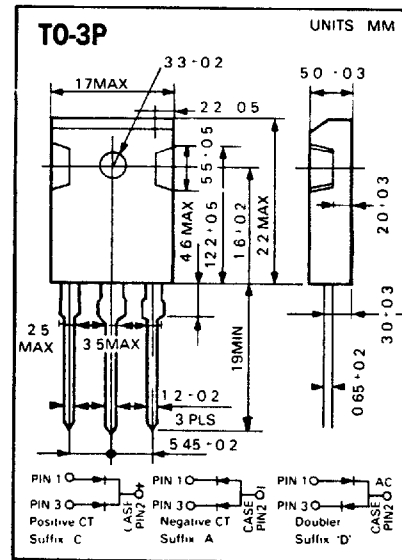
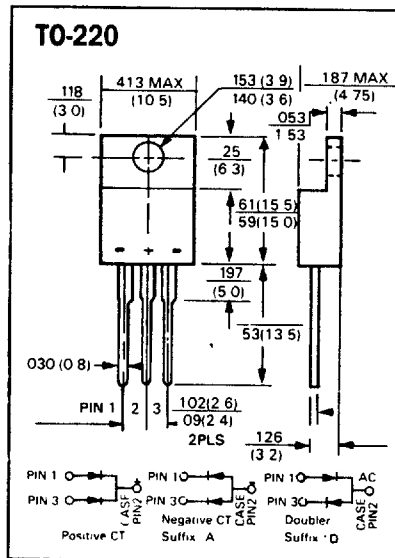
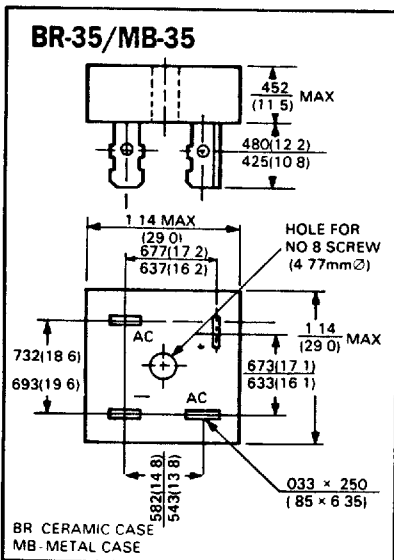
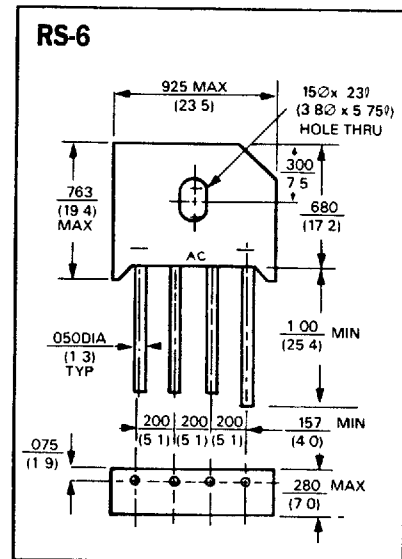
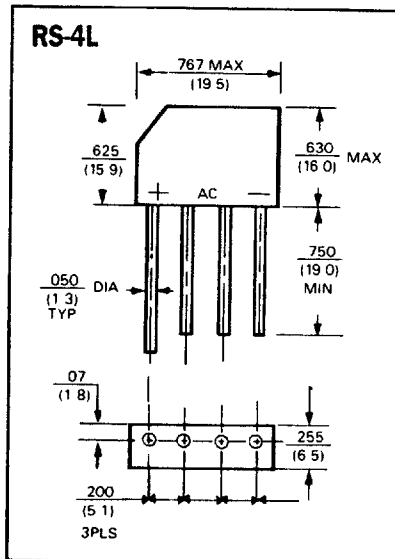
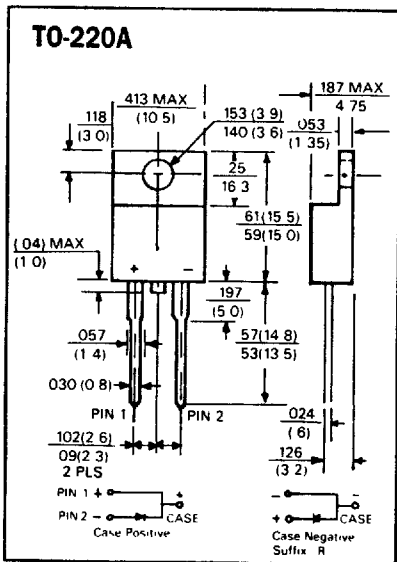
OUTLINE DRAWINGS



RECTIFIER DIODES AND BRIDGE RECTIFIERS

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OUTLINE DRAWINGS



RECTIFIERS

SEMITRON INDUSTRIES LTD

Product Packaging Specifications

PACKAGING OF AXIAL LEAD DIODES, MELF AND MINI-MELF SURFACE MOUNT DEVICES AND TRANSISTORS

REEL PACK

OUTLINE	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA. (m/m)	QTY./REEL (each)
DO-7	5.0	52.4	330	10,000
DO-35	5.0	53	355	10,000
DO-35 (ZENER)	[RADIAL TAPING SEE FIG. 1, 2 & 3]		355	5,000
DL-35 (MINI MELF)	See Pg. 37		250/330	5,000/10,000
DL-41 (MELF)	See Pg. 37		330	5,000
A-405	5.0	52.4	330	5,000
A-500	5.0	52.4	203/254/304	1,000/2,000/3,000
DO-41	5.0	52.4	330	5,000
DO-41 (ZENER)	5.0	53	355	5,000
DO-15	5.0	52.4	330	4,000
R-3	5.0	52.4	330	3,000
DO-201AD	10.0	52.4	330	1,200
R-6	10.0	52.4	330	500
TO-92	[RADIAL TAPING SEE FIG. 4, 5 & 6]		355	2,000
TO-236/SOT-23	[SEE SPECIFICATIONS ON PG.38]		178	3,000

PACKAGING OF AXIAL LEAD DIODES AND LEADED TRANSISTORS

AMMO PACK

OUTLINE	COMPONENT SPACE (mm)	TAPE SPACE (mm)	BOX SIZE (m/m)	QTY./BOX (each)
DO-35 (SW. DIODES)	5.0	53	338/147/77	15,000
DO-35	5.0	53	255/95/85	6,000
DO-35	5.0	26	255/95/51	6,000
A-405	5.0	52.4	255/95/78	3,000
DO-41	5.0	52.4	255/95/78	3,000
DO-41	5.0	26	255/51/95	3,000
DO-41 (ZENER)	5.0	53	255/95/85	3,000
DO-41 (ZENER)	5.0	26	255/95/51	3,000
DO-15	5.0	52.4	255/95/78	2,200
R-3	5.0	52.4	255/95/78	2,000
DO-201AD	10.0	52.4	255/95/78	800
R-6	10.0	52.4	255/95/78	300
TO-92	[RADIAL TAPING, SEE FIG. 4]		340/340/45	4,000

RECTIFIER DIODES AND
BRIDGE RECTIFIERS

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