

silicon rectifiers cont'd

miniature axial lead silicon rectifiers
DO-41 case style—

Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) @ Ambient Temp. (°C)	Maximum Forward Voltage (volts) @ Forward Current (Amps)	Reverse Current (mA) @ Ambient Temp. (°C)	Notes
1N3241	600	0.75 @ 25	2.2 @ 0.75	0.5 @ 150	11
1N3242	800	0.75 @ 25	2.2 @ 0.75	0.5 @ 150	11
1N3243	1000	0.75 @ 25	2.2 @ 0.75	0.5 @ 150	11
1N3244	1200	0.75 @ 25	2.2 @ 0.75	0.5 @ 150	11
1N3245	1500	0.75 @ 25	2.2 @ 0.75	0.5 @ 150	11
1N3246	50	1 @ 25	1.1 @ 1	0.5 @ 150	11
1N3247	100	1 @ 25	1.1 @ 1	0.5 @ 150	11
1N3248	200	1 @ 25	1.1 @ 1	0.5 @ 150	11
1N3249	400	1 @ 25	1.1 @ 1	0.5 @ 150	11
1N3250	600	1 @ 25	1.1 @ 1	0.5 @ 150	11
1N3251	800	1 @ 25	1.1 @ 1	0.5 @ 150	11
1N3544	100	0.6 @ 25	1 @ 0.5 (7)	0.75 @ 175	11
1N3546	300	0.6 @ 25	1 @ 0.5 (7)	0.75 @ 175	11
1N3547	400	0.6 @ 25	1 @ 0.5 (7)	0.75 @ 175	11
1N3548	500	0.6 @ 25	1 @ 0.5 (7)	0.75 @ 175	11
1N3549	600	0.6 @ 25	1 @ 0.5 (7)	0.75 @ 175	11
1N4001	50	1 @ 75	1.6 @ 1(27)	.03 @ 75	11
1N4002	100	1 @ 75	1.6 @ 1(27)	.03 @ 75	11
1N4003	200	1 @ 75	1.6 @ 1(27)	.03 @ 75	11
1N4004	400	1 @ 75	1.6 @ 1(27)	.03 @ 75	11
1N4005	600	1 @ 75	1.6 @ 1(27)	.03 @ 75	11
1N4006	800	1 @ 75	1.6 @ 1(27)	.03 @ 75	11
1N4007	1000	1 @ 75	1.6 @ 1(27)	.03 @ 75	11

DO-27 case style

Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) @ Ambient Temp. (°C)	Maximum Forward Voltage (volts) @ Forward Current (Amps)	Reverse Current (μA) @ Ambient Temp. (°C)	Notes
1N2069	200	0.75 @ 25	1.2 @ 0.5	10 @ 25	—
1N2069A	200	0.75 @ 25	1.0 @ 0.5	5 @ 25	—
1N2070	400	0.75 @ 25	1.2 @ 0.5	10 @ 25	—
1N2070A	400	0.75 @ 25	1.0 @ 0.5	5 @ 25	—
1N2071	600	0.75 @ 25	1.2 @ 0.5	10 @ 25	—
1N2071A	600	0.75 @ 25	1.0 @ 0.5	5 @ 25	—
1N2482	200	0.75 @ 55	1.2 @ 0.75	1000 @ 55	—
1N2483	400	0.75 @ 55	1.2 @ 0.75	1000 @ 55	—
1N2484	600	0.75 @ 55	1.2 @ 0.75	1000 @ 55	—
1N4089	400	1.1 @ 85	1.2 @ 1.1 (12)	200 @ 85	11
1N4361	900	0.5 @ 100	1.3 @ 0.5 (13)	600 @ 125	11
1N4513	2000	0.25 @ 50	4.5 @ 0.25 (14)	500 @ 175	11
1N4514	800	1.1 @ 50	1.0 @ 1.1 (14)	500 @ 175	11
1N4517	200	2.0 @ 50	1.2 @ 2.0 (14)	1.0 @ 175	11
1N4816	50	1.5 @ 40	1.3 @ 1.5 (15)	250 @ 40	—
1N4817	100	1.5 @ 40	1.3 @ 1.5 (15)	250 @ 40	—
1N4818	200	1.5 @ 40	1.3 @ 1.5 (15)	250 @ 40	—
1N4819	300	1.5 @ 40	1.3 @ 1.5 (15)	250 @ 40	—
1N4820	400	1.5 @ 40	1.3 @ 1.5 (15)	250 @ 40	—
1N4821	500	1.5 @ 40	1.3 @ 1.5 (15)	250 @ 40	—
1N4822	600	1.5 @ 40	1.3 @ 1.5 (15)	250 @ 40	—
1N5052	700	1.5 @ 40	1.3 @ 1.5 (15)	500 @ 170	—
1N5053	800	1.5 @ 40	1.3 @ 1.5 (15)	500 @ 170	—
1N5054	1000	1.5 @ 40	1.3 @ 1.5 (15)	500 @ 170	—

miniature silicon glass rectifiers — DO-29 case style

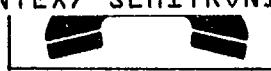
Type	Maximum Peak Reverse Voltage (volts)	Ambient Temp. (°C) Maximum Average Forward Current (Amps)	Forward Current (Amps) Maximum Forward Voltage (volts)	Ambient Temp. (°C) Reverse Current (mA)	Notes
1N4383	200	1 @ 100	1 @ 1	.010 @ 25	—
1N4384	400	1 @ 100	1 @ 1	.010 @ 25	—
1N4385	600	1 @ 100	1 @ 1	.010 @ 25	—
1N4585	800	.6 @ 100	1 @ 1	.010 @ 25	—
1N4586	1000	.6 @ 100	1 @ 1	.010 @ 25	—

stud mounted silicon power rectifiers DO-4 case style

Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) @ Case Temp. (°C)	Maximum Forward Voltage (volts) @ Forward Current (Amps)	Reverse Current (mA) @ Case Temp. (°C)	Notes
1N253	95	1 @ 150	2 @ 2	.1 @ 150	—
1N254	190	0.4 @ 150	2 @ 0.8	.1 @ 150	—
1N255	380	0.4 @ 150	2 @ 0.8	.15 @ 150	—
1N256	570	0.2 @ 150	2 @ 0.4	.25 @ 150	—
1N332	400	0.4 @ 150	2 @ 0.8	.2 @ 150	—
1N333	400	0.2 @ 150	2 @ 0.4	.2 @ 150	—
1N334	300	0.4 @ 150	2 @ 0.8	.2 @ 150	—
1N335	300	0.2 @ 150	2 @ 0.4	.2 @ 150	—
1N336	200	0.4 @ 150	2 @ 0.8	.1 @ 150	—
1N337	200	0.2 @ 150	2 @ 0.4	.2 @ 150	—
1N338	100	1 @ 150	2 @ 2	.2 @ 150	—
1N339	100	0.4 @ 150	2 @ 0.8	.1 @ 150	—
1N340	100	0.2 @ 150	2 @ 0.4	.5 @ 150	—
1N341	400	0.4 @ 150	2 @ 0.8	.1 @ 150	—
1N342	400	0.2 @ 150	2 @ 0.4	.5 @ 150	—
1N343	300	0.4 @ 150	2 @ 0.8	.5 @ 150	—
1N344	300	0.2 @ 150	2 @ 0.4	0.5 @ 150	—
1N345	200	0.4 @ 150	2 @ 0.8	0.5 @ 150	—
1N346	200	0.2 @ 150	2 @ 0.4	0.5 @ 150	—
1N347	100	1 @ 150	2 @ 2	0.5 @ 150	—
1N348	100	0.4 @ 150	2 @ 0.8	0.5 @ 150	—
1N349	100	0.2 @ 150	2 @ 0.4	0.5 @ 150	—
1N550	100	0.5 @ 125	1.5 @ 0.5	0.5 @ 25	6
1N551	200	0.5 @ 125	1.5 @ 0.5	0.5 @ 25	6
1N552	300	0.5 @ 125	1.5 @ 0.5	1.5 @ 25	6
1N553	400	0.5 @ 125	1.5 @ .05	2.5 @ 25	6
1N554	500	0.5 @ 125	1.5 @ 0.5	3.5 @ 25	6
1N555	600	0.5 @ 125	1.5 @ 0.5	5 @ 25	6
1N562	800	0.4 @ 125	1.75 @ 0.4	15 @ 25	6
1N563	1000	0.4 @ 125	1.75 @ 0.4	20 @ 25	6
1N1115	100	0.6 @ 150	0.65 @ 0.6	0.4 @ 150	4
1N1116	200	0.6 @ 150	0.65 @ 0.6	0.3 @ 150	4
1N1117	300	0.6 @ 150	0.65 @ 0.6	0.3 @ 150	4
1N1118	400	0.6 @ 150	0.65 @ 0.6	0.3 @ 150	4
1N1119	500	0.6 @ 150	0.65 @ 0.6	0.3 @ 150	4
1N1120	600	0.6 @ 150	0.65 @ 0.6	0.3 @ 150	4
1N1124	200	1 @ 150	1.1 @ 1	0.3 @ 150	3
1N1124A	200	1 @ 150	1.1 @ 1	0.3 @ 150	—
1N1125	300	1 @ 150	1.1 @ 1	0.3 @ 150	3
1N1125A	300	1 @ 150	1.1 @ 1	0.3 @ 150	—
1N1126	400	1 @ 150	1.1 @ 1	0.3 @ 150	3
1N1126A	400	1 @ 150	1.1 @ 1	0.3 @ 150	—
1N1127	500	1 @ 150	1.1 @ 1	0.3 @ 150	3
1N1127A	500	1 @ 150	1.1 @ 1	0.3 @ 150	—
1N1128	600	1 @ 150	1.1 @ 1	0.3 @ 150	3
1N1128A	600	1 @ 150	1.1 @ 1	0.3 @ 150	—
1N1130	1500	0.3 @ 25	15 @ 0.3	0.05 @ 25	5
1N1199	50	12 @ 150	1.3 @ 12	10 @ 150	5, 3
1N1199A	50	12 @ 150	1.3 @ 12	3 @ 150	—
1N1199B	50	12 @ 150	1.1 @ 12	0.9 @ 150	—
1N1200	100	12 @ 150	1.3 @ 12	10 @ 150	5, 3
1N1200A	100	12 @ 150	1.3 @ 12	2.5 @ 150	—
1N1200B	100	12 @ 150	1.1 @ 12	0.9 @ 150	—
1N1201	150	12 @ 150	1.3 @ 12	10 @ 150	5, 3
1N1201A	150	12 @ 150	1.3 @ 12	2.25 @ 150	—
1N1201B	150	12 @ 150	1.1 @ 12	0.9 @ 150	—
1N1202	200	12 @ 150	1.3 @ 12	10 @ 150	3, 5
1N1202A	200	12 @ 150	1.3 @ 12	2 @ 150	—
1N1202B	200	12 @ 150	1.1 @ 12	0.9 @ 150	—

6.0 amperes — R-6 case style

Type	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Super-Imposed	Maximum Reverse Current @ PRV @ 25°C T _a	Maximum Forward Voltage @ 25°C T _a	
		I _{FM} @ T _a	°C				
	PRV/V _{pk}	A _{FM}	°C	A _{pk}	A _{rc}	V _{FM}	
SES6A05	50	6.0	75	400	10.0	6.0	0.95
SES6A1	100	6.0	75	400	10.0	6.0	0.95
SES6A2	200	6.0	75	400	10.0	6.0	0.95
SES6A4	400	6.0	75	400	10.0	6.0	0.95
SES6A6	600	6.0	75	400	10.0	6.0	0.95
SES6A8	800	6.0	75	400	10.0	6.0	0.95
SES6A10	1000	6.0	75	400	10.0	6.0	0.95



silicon rectifiers cont'd

stud mounted silicon power rectifiers
DO-4 case style — (cont'd)

Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) @ Case Temp. (°C)	Maximum Forward Voltage (volts) @ Forward Current (Amps)	Reverse Current (mA) @ Case Temp. (°C)	Notes
1N1203	300	12 @ 150	1.3 @ 12	10 @ 150	3, 5
1N1203A	300	12 @ 150	1.3 @ 12	1.75 @ 150	—
1N1203B	300	12 @ 150	1.1 @ 12	0.9 @ 150	—
1N1204	400	12 @ 150	1.3 @ 12	10 @ 150	2, 5
1N1204A	400	12 @ 150	1.3 @ 12	1.5 @ 150	—
1N1204B	400	12 @ 150	1.1 @ 12	0.9 @ 150	—
1N1205	500	12 @ 150	1.3 @ 12	10 @ 150	3, 5
1N1205A	500	12 @ 150	1.3 @ 12	1.25 @ 150	—
1N1205B	500	12 @ 150	1.1 @ 12	0.9 @ 150	—
1N1206	600	12 @ 150	1.3 @ 12	10 @ 150	3, 5
1N1206A	600	12 @ 150	1.3 @ 12	1 @ 150	—
1N1206B	600	12 @ 150	1.1 @ 12	0.9 @ 150	—
1N1227 (1)	50	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1227A(1)	50	1.6 @ 140	1.15 @ 1	0.5 @ 150	5
1N1228 (1)	100	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1228A(1)	100	1.6 @ 140	1.15 @ 1	0.5 @ 150	5
1N1229 (1)	150	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1229A(1)	150	1.6 @ 140	1.15 @ 1	0.5 @ 150	5
1N1230 (1)	200	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1230A(1)	200	1.6 @ 140	1.15 @ 1	0.5 @ 150	5
1N1231 (1)	300	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1231A(1)	300	1.6 @ 140	1.15 @ 1	0.5 @ 150	5
1N1232 (1)	400	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1232A(1)	400	1.6 @ 140	1.15 @ 1	0.5 @ 150	5
1N1233 (1)	500	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1233A(1)	500	1.6 @ 140	1.15 @ 1	0.5 @ 150	5
1N1234 (1)	600	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1234A(1)	600	1.6 @ 140	1.15 @ 1	0.5 @ 150	5
1N1235 (1)	700	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1236 (1)	800	1.6 @ 140	1.15 @ 1	0.5 @ 125	5
1N1341	50	6 @ 150	1.2 @ 10	10 @ 150	3, 5
1N1341A	50	6 @ 150	1.2 @ 10	3 @ 150	3
1N1341B	50	6 @ 150	1.1 @ 6	.45 @ 150	3
1N1342	100	6 @ 150	1.2 @ 10	10 @ 150	3, 5
1N1342A	100	6 @ 150	1.2 @ 10	2.5 @ 150	3
1N1342B	100	6 @ 150	1.1 @ 6	.45 @ 150	3
1N1343	150	6 @ 150	1.2 @ 10	10 @ 150	3, 5
1N1343A	150	6 @ 150	1.2 @ 10	2.25 @ 150	3
1N1343B	150	6 @ 150	1.1 @ 6	.45 @ 150	3
1N1344	200	6 @ 150	1.2 @ 10	10 @ 150	3, 5
1N1344A	200	6 @ 150	1.2 @ 10	2 @ 150	3
1N1344B	200	6 @ 150	1.1 @ 6	.45 @ 150	3
1N1345	300	6 @ 150	1.2 @ 10	10 @ 150	3, 5
1N1345A	300	6 @ 150	1.2 @ 10	1.75 @ 150	3
1N1345B	300	6 @ 150	1.1 @ 6	.45 @ 150	3
1N1346	400	6 @ 150	1.2 @ 10	10 @ 150	3, 5
1N1346A	400	6 @ 150	1.2 @ 10	1.5 @ 150	3
1N1346B	400	6 @ 150	1.1 @ 6	.45 @ 150	3
1N1347	500	6 @ 150	1.2 @ 10	10 @ 150	3, 5
1N1347A	500	6 @ 150	1.2 @ 10	1.25 @ 150	3
1N1347B	500	6 @ 150	1.1 @ 6	.45 @ 150	3
1N1348	600	6 @ 150	1.2 @ 10	10 @ 150	3, 5
1N1348A	600	6 @ 150	1.2 @ 10	1 @ 150	—
1N1348B	600	6 @ 150	1.1 @ 6	.45 @ 150	—
1N1537	50	1.6 @ 140	1.5 @ 2.5	0.5 @ 150	3
1N1538	100	1.6 @ 140	1.5 @ 2.5	0.5 @ 150	3
1N1539	150	1.6 @ 140	1.5 @ 2.5	0.5 @ 150	3
1N1540	200	1.6 @ 140	1.5 @ 2.5	0.5 @ 150	3
1N1541	300	1.6 @ 140	1.5 @ 2.5	0.5 @ 150	3
1N1542	400	1.6 @ 140	1.5 @ 2.5	0.5 @ 150	3
1N1543	500	1.6 @ 140	1.5 @ 2.5	0.5 @ 150	3
1N1544	600	1.6 @ 140	1.5 @ 2.5	0.5 @ 150	3
1N1551	100	0.75 @ 100	1.4 @ 0.75	1 @ 100	—
1N1552	200	0.75 @ 100	1.4 @ 0.75	1 @ 100	—
1N1553	300	0.75 @ 100	1.4 @ 0.75	1 @ 100	—
1N1554	400	0.75 @ 100	1.4 @ 0.75	1 @ 100	—
1N1555	500	0.75 @ 100	1.4 @ 0.75	1 @ 100	—
1N1581	50	3 @ 150	1.5 @ 6	0.5 @ 150	3
1N1582	100	3 @ 150	1.5 @ 6	0.5 @ 150	3
1N1583	200	3 @ 150	1.5 @ 6	0.5 @ 150	3
1N1584	300	3 @ 150	1.5 @ 6	0.5 @ 150	3
1N1585	400	3 @ 150	1.5 @ 6	0.5 @ 150	3
1N1586	500	3 @ 150	1.5 @ 6	0.5 @ 150	3
1N1587	600	3 @ 150	1.5 @ 6	0.5 @ 150	3
1N1612	50	5 @ 150	1.5 @ 10	1 @ 150	3

DO-4 case style — (cont'd)

Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) @ Case Temp. (°C)	Maximum Forward Voltage (volts) @ Forward Current (Amps)	Reverse Current (mA) @ Case Temp. (°C)	Notes
1N1612A	50	5 @ 150	1.1 @ 6(7)	0.5 @ 150(8)	—
1N1613	100	5 @ 150	1.5 @ 10	1 @ 150	3
1N1613A	100	5 @ 150	1.1 @ 6(7)	0.5 @ 150(8)	—
1N1614	200	5 @ 150	1.5 @ 10	1 @ 150	3
1N1614A	200	5 @ 150	1.1 @ 6(7)	0.5 @ 150(8)	—
1N1615	400	5 @ 150	1.5 @ 10	1 @ 150	3
1N1615A	400	5 @ 150	1.1 @ 6(7)	0.5 @ 150(8)	—
1N1616	600	5 @ 150	1.5 @ 10	1 @ 150	3
1N1616A	600	5 @ 150	1.1 @ 6(7)	0.5 @ 150(8)	—
1N2026	50	1 @ 150	2 @ 2	0.5 @ 150	3
1N2027	200	1 @ 150	2 @ 2	0.5 @ 150	3
1N2028	300	1 @ 150	2 @ 2	0.5 @ 150	3
1N2029	400	1 @ 150	2 @ 2	0.5 @ 150	3
1N2030	500	1 @ 150	2 @ 2	0.5 @ 150	3
1N2031	600	1 @ 150	2 @ 2	0.5 @ 150	3
1N2216	50	0.4 @ 150	1.2 @ 1.5	0.5 @ 150	—
1N2218	500	0.4 @ 150	1.2 @ 1.5	0.5 @ 150	3
1N2220	600	0.4 @ 150	1.2 @ 1.5	0.5 @ 150	3
1N2222	800	0.3 @ 150	1.2 @ 2	.75 @ 150	—
1N2222A	800	0.3 @ 150	1.2 @ 2	.35 @ 150	—
1N2224	1000	0.3 @ 150	1.2 @ 2	.75 @ 150	—
1N2224A	1000	0.3 @ 150	1.2 @ 2	.35 @ 150	—
1N2226	1200	0.3 @ 150	1.2 @ 2	.75 @ 150	—
1N2226A	1200	0.3 @ 150	1.2 @ 2	.35 @ 150	—
1N2228	50	1 @ 150	0.6 @ 1.5	0.5 @ 150	3, 4
1N2230	200	1 @ 150	0.6 @ 1.5	0.5 @ 150	3, 4
1N2232	300	1 @ 150	0.6 @ 1.5	0.5 @ 150	3, 4
1N2234	400	1 @ 150	0.6 @ 1.5	0.5 @ 150	3, 4
1N2238	600	1 @ 150	0.6 @ 1.5	0.5 @ 150	3, 4
1N2240	800	5 @ 25(7)	0.6 @ 1.5(7)	0.75 @ 150(8)	3
1N2240A	800	5 @ 25(7)	0.6 @ 5 (7)	0.35 @ 150(8)	3
1N2246	50	10 @ 25	0.6 @ 10 (7)	1 @ 150(8)	3
1N2246A	50	10 @ 25	0.6 @ 10 (7)	0.5 @ 150(8)	3
1N2248	100	10 @ 25	0.6 @ 10 (7)	1 @ 150(8)	3
1N2248A	100	10 @ 25	0.6 @ 10 (7)	0.5 @ 150(8)	3
1N2250	200	10 @ 25	0.6 @ 10 (7)	1 @ 150(8)	3
1N2250A	200	10 @ 25	0.6 @ 10 (7)	0.5 @ 150(8)	3
1N2252	300	10 @ 25	0.6 @ 10 (7)	1 @ 150(8)	3
1N2252A	300	10 @ 25	0.6 @ 10 (7)	0.5 @ 150(8)	3
1N2254	400	10 @ 25	0.6 @ 10 (7)	1 @ 150(8)	3
1N2254A	400	10 @ 25	0.6 @ 10 (7)	0.5 @ 150(8)	3
1N2256	500	10 @ 25	0.6 @ 10 (7)	1 @ 150(8)	3
1N2256A	500	10 @ 25	0.6 @ 10 (7)	0.5 @ 150(8)	3
1N2258	600	10 @ 25	0.6 @ 10 (7)	1 @ 150(8)	3
1N2258A	600	10 @ 25	0.6 @ 10 (7)	0.5 @ 150(8)	3
1N2268	50	0.3 @ 150	0.6 @ 1	.35 @ 150	4
1N2268B	500	0.3 @ 150	0.6 @ 1	.35 @ 150	4
1N2270	600	0.3 @ 150	0.6 @ 1	.35 @ 150	4
1N2272	50	6 @ 150	1.2 @ 20	1 @ 150	3
1N2273	100	6 @ 150	1.2 @ 20	1 @ 150	3
1N2274	200	6 @ 150	1.2 @ 20	1 @ 150	3
1N2275	300	6 @ 150	1.2 @ 20	1 @ 150	—
1N2276	400	6 @ 150	1.2 @ 20	1 @ 150	3
1N2277	500	6 @ 150	1.2 @ 20	1 @ 150	—
1N2278	600	6 @ 150	1.2 @ 20	1 @ 150	3
1N2279	800	6 @ 150	1.2 @ 20	1 @ 150	—
1N2280	1000	20 @ 25(8)	0.6 @ 20 (7)	1 @ 150(8)	—
1N2281	1200	20 @ 25(8)	0.6 @ 20 (7)	1 @ 150(8)	—
1N2362	1400	1 @ 25	2 @ 1.5(7)	.001 @ 25 (8)	—
1N2362A	1400	5 @ 25(8)	2 @ 8 (7)	.001 @ 25 (8)	—
1N2362B	1400	10 @ 25(10)	2 @ 15 (7)	.001 @ 25 (8)	—
1N2364	1500	1 @ 25(8)	2 @ 1.5(7)	.001 @ 25 (8)	—
1N2364A	1500	5 @ 25(8)	2 @ 8 (7)	.001 @ 25 (8)	—
1N2364B	1500	10 @ 25	2 @ 15 (7)	.001 @ 25 (8)	—
1N2366	1600	1 @ 25(8)	2 @ 1.5(7)	.001 @ 25 (8)	—
1N2366A	1600	5 @ 25(8)	2 @ 8 (7)	.001 @ 25 (8)	—
1N2366B	1600	10 @ 25	2 @ 15 (7)	.001 @ 25 (8)	—
1N2367	1600	1 @ 25(8)	2 @ 1.5(7)	.001 @ 25 (8)	—
1N2368	1800	1 @ 25(8)	2 @ 1.5(7)	.001 @ 25 (8)	—
1N2368A	1800	5 @ 25(8)	2 @ 8 (7)	.001 @ 25 (8)	—
1N2368B	1800	10 @ 25(10)	2 @ 15 (7)	.001 @ 25 (8)	—
1N2491	50	6 @ 150	1.2 @ 12	2 @ 150	3
1N2492	100	6 @ 150	1.2 @ 12	2 @ 150	3
1N2493	200	6 @ 150	1.2 @ 12	2 @ 150	3
1N2494	300	6 @ 150	1.2 @ 12	2 @ 150	3

silicon rectifiers cont'd

stud mounted silicon power rectifiers
DO-4 case style — (cont'd)

Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) @ Case Temp. (°C)	Maximum Forward Voltage (volts) @ Forward Current (Amps)	Reverse Current (mA) @ Case Temp. (°C)	Notes
1N2495	400	6 @ 150	1.2 @ 12	2 @ 150	3
1N2496	500	6 @ 150	1.2 @ 12	2 @ 150	3
1N2497	600	6 @ 150	1.2 @ 12	2 @ 150	3
1N2512	100	4 @ 30	1.1 @ 1.5(7)	.002 @ 25 (8)	3
1N2513	200	4 @ 30	1.1 @ 1.5(7)	1 @ 150(8)	3
1N2514	300	4 @ 30	1.1 @ 1.5(7)	1 @ 150(8)	3
1N2515	400	4 @ 30(8)	1.1 @ 1.5(7)	.002 @ 25 (8)	3
1N2516	500	4 @ 30	1.1 @ 1.5(7)	.002 @ 25 (8)	3
1N2517	600	4 @ 30(16)	1.1 @ 1.5(7)	.002 @ 25 (8)	3
1N2784	200	22 @ 40(8)	1.5 @ 25 (9)	.002 @ 25 (8)	3
1N2785	400	22 @ 40(8)	1.5 @ 25 (9)	.002 @ 25 (8)	3
1N3569	100	3.5 @ 85(10)	0.5 @ 2.5(24)	0.4 @ 150(8)	3
1N3570	200	3.5 @ 85(10)	0.5 @ 2.5(24)	0.4 @ 150(8)	3
1N3571	300	3.5 @ 85(10)	0.5 @ 2.5(24)	0.4 @ 150(8)	3
1N3572	400	3.5 @ 85(10)	0.5 @ 2.5(24)	0.4 @ 150(8)	3
1N3573	500	3.5 @ 85(10)	0.5 @ 2.5(24)	0.4 @ 150(8)	3
1N3574	600	3.5 @ 85(10)	0.5 @ 2.5(24)	0.4 @ 150(8)	3
1N3615	50	16 @ 155(10)	—	3 @ 175(10)	3
1N3616	100	16 @ 155(10)	—	2.5 @ 175(10)	3
1N3617	150	16 @ 155(10)	—	2.3 @ 175(10)	3
1N3618	200	16 @ 155(10)	—	2 @ 175(10)	3
1N3619	300	16 @ 155(10)	—	1.8 @ 175(10)	3
1N3620	400	16 @ 155(10)	—	1.5 @ 175(10)	3
1N3621	500	16 @ 155(10)	—	1.3 @ 175(10)	3
1N3622	600	16 @ 155(10)	—	1 @ 175(10)	3
1N3623	800	16 @ 155(10)	—	0.75 @ 175(10)	3
1N3624	1000	16 @ 155(10)	—	0.6 @ 175(10)	3
1N3649	800	3 @ 25 (8)	1.1 @ 3 (7)	0.2 @ 150(8)	—
1N3650	1000	3 @ 25 (8)	1.1 @ 3 (7)	0.2 @ 150(8)	3
1N3919	1000	5 @ 100(8)	2 @ 5 (13)	0.5 @ 100	—
1N3934	1200	10 @ 25 (8)	2 @ 10(7)	.001 @ 25 (8)	—
1N3987	700	6 @ 150	1.5	1 @ 150(8)	3
1N3988	800	6 @ 150	1.5	0.8 @ 150(8)	3
1N3989	900	6 @ 150	1.5	0.7 @ 150(8)	3
1N3990	1000	6 @ 150	1.5	0.6 @ 150(8)	3
1N4012	700	12 @ 150	1.3 @ 12(24)	0.5 @ 150(8)	—
1N4013	800	12 @ 150	1.3 @ 12(24)	0.5 @ 150(8)	—
1N4458	800	5 @ 150(10)	1.5 @ 5 (25)	0.5 @ 150(10)	3
1N4459	1000	5 @ 150(10)	1.5 @ 5 (25)	0.5 @ 150(10)	3
1N4506	200	12 @ 135	1.4 @ 12	2.5 @ 135	—
1N4507	400	12 @ 135	1.4 @ 12	2.5 @ 135	—
1N4508	600	12 @ 135	1.4 @ 12	2.5 @ 135	—
1N4509	800	12 @ 135	1.4 @ 12	2.5 @ 135	—
1N4510	1000	12 @ 135	1.4 @ 12	2.5 @ 135	—
1N4511	1200	12 @ 135	1.4 @ 12	2.5 @ 135	—

DO-5 case style

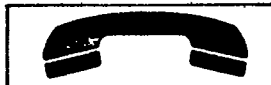
Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) @ Case Temp. (°C)	Maximum Forward Voltage (volts) @ Forward Current (Amps)	Reverse Current (mA) @ Case Temp. (°C)	Notes
1N248	50	10 @ 150	1.5 @ 25	5 @ 150	3
1N248A, B	50	20 @ 150	1.5 @ 25	5 @ 150	3
1N249	100	10 @ 150	1.5 @ 25	5 @ 150	3
1N249A, B	100	20 @ 150	1.5 @ 25	5 @ 150	3
1N250	200	10 @ 150	1.5 @ 25	5 @ 150	3
1N250A, B	200	20 @ 150	1.5 @ 25	5 @ 150	3
1N1183	50	35 @ 140	1.4 @ 100	10 @ 140	3
1N1184	100	35 @ 140	1.4 @ 100	10 @ 140	3
1N1184A	100	40 @ 150	1.1 @ 100	2.5 @ 150	3
1N1185	150	35 @ 140	1.4 @ 100	10 @ 140	3
1N1185A	150	40 @ 150	1.1 @ 100	2.5 @ 150	—
1N1186	200	35 @ 140	1.4 @ 100	10 @ 140	3
1N1187	300	35 @ 140	1.4 @ 100	10 @ 140	3
1N1187A	300	40 @ 150	1.1 @ 100	2.5 @ 150	—
1N1188	400	35 @ 140	1.4 @ 100	10 @ 140	3

DO-5 case style — (cont'd)

Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) @ Case Temp. (°C)	Maximum Forward Voltage (volts) @ Forward Current (Amps)	Reverse Current (mA) @ Case Temp. (°C)	Notes
1N1188A	400	40 @ 150	1.1 @ 100	2.5 @ 150	—
1N1189	500	35 @ 140	1.4 @ 100	10 @ 140	—
1N1189A	500	40 @ 150	1.1 @ 100	2.5 @ 150	3
1N1190	600	35 @ 140	1.4 @ 100	10 @ 140	—
1N1190A	600	40 @ 150	1.1 @ 100	2.5 @ 150	—
1N1191	50	18 @ 140	1.3 @ 50	10 @ 140	3, 5
1N1192	100	18 @ 140	1.3 @ 50	10 @ 140	3, 5
1N1192A	100	22 @ 150	1.2 @ 60	2.5 @ 150	3, 5
1N1193	150	18 @ 140	1.3 @ 50	10 @ 140	3, 5
1N1193A	150	22 @ 150	1.2 @ 60	2.5 @ 150	3, 5
1N1194	200	18 @ 140	1.3 @ 50	10 @ 140	3, 5
1N1194A	200	22 @ 150	1.2 @ 60	2.5 @ 150	3, 5
1N1195	300	18 @ 140	1.3 @ 50	10 @ 140	3, 5
1N1196	400	18 @ 140	1.3 @ 50	10 @ 140	3, 5
1N1196A	400	22 @ 150	1.2 @ 60	2.5 @ 150	3, 5
1N1197	500	18 @ 140	1.3 @ 50	10 @ 140	3, 5
1N1197A	500	22 @ 150	1.2 @ 60	2.5 @ 150	3, 5
1N1198	600	18 @ 140	1.3 @ 50	10 @ 140	3, 5
1N1301	50	37 @ 120	1.5 @ 50(7)	2.0 @ 150	—
1N1302	100	37 @ 120	1.5 @ 50(7)	2.0 @ 150	—
1N1304	200	37 @ 120	1.5 @ 50(7)	2.0 @ 150	—
1N1306	300	37 @ 120	1.5 @ 50(7)	2.0 @ 150	—
1N1434	50	30 @ 25	1.2 @ 60	5 @ 150	3
1N1435	100	30 @ 25	1.2 @ 60	5 @ 150	3
1N1436	200	30 @ 25	1.2 @ 60	5 @ 150	3
1N1437	400	30 @ 25	1.2 @ 60	5 @ 150	3
1N1444	1000	1.6 @ 145	1.15 @ 1	0.5 @ 125	3
1N2021	150	10 @ 150	1.5 @ 25	5 @ 150	3
1N2022	250	10 @ 150	1.5 @ 25	5 @ 150	3
1N2023	300	10 @ 150	1.5 @ 25	5 @ 150	3
1N2024	350	10 @ 150	1.5 @ 25	5 @ 150	3
1N2025	400	10 @ 150	1.5 @ 25	5 @ 150	3
1N2154	50	25 @ 145	0.6 @ 25	4.5 @ 145	3, 4
1N2155	100	25 @ 145	0.6 @ 25	4.5 @ 145	3, 4
1N2156	200	25 @ 145	0.6 @ 25	4.0 @ 145	3, 4
1N2157	300	25 @ 145	0.6 @ 25	3.5 @ 145	4
1N2158	400	25 @ 145	0.6 @ 25	3.0 @ 145	3, 4
1N2159	600	25 @ 145	0.6 @ 25	2.5 @ 145	3, 4
1N2160	600	25 @ 145	0.6 @ 25	2.0 @ 145	3, 4
1N2282	300	35 @ 25(8)	0.6 @ 35(7)	5 @ 150(8)	—
1N2283	400	35 @ 25(8)	0.6 @ 35(7)	5 @ 150(8)	—
1N2284	500	35 @ 25(8)	0.6 @ 35(7)	5 @ 150(8)	—
1N2285	600	35 @ 25(8)	0.6 @ 35(7)	5 @ 150(8)	—
1N2446	50	20 @ 150	1.1 @ 20	5 @ 150	3
1N2447	100	20 @ 150	1.1 @ 20	5 @ 150	3
1N2448	150	20 @ 150	1.1 @ 20	5 @ 150	3
1N2449	200	20 @ 150	1.1 @ 20	5 @ 150	3
1N2450	250	20 @ 150	1.1 @ 20	5 @ 150	3
1N2451	300	20 @ 150	1.1 @ 20	5 @ 150	3
1N2452	350	20 @ 150	1.1 @ 20	5 @ 150	3
1N2453	400	20 @ 150	1.1 @ 20	5 @ 150	3
1N2454	500	20 @ 150	1.1 @ 20	5 @ 150	3
1N2455	600	20 @ 150	1.1 @ 20	5 @ 150	3
1N2456	700	20 @ 150	1.1 @ 20	5 @ 150	3
1N2457	800	20 @ 150	1.1 @ 20	5 @ 150	3
1N2786	200	10 @	1.2 @ 10	10 @ 150(8)	—
1N2787	400	10 @	1.2 @ 10	10 @ 150(8)	—
1N2788	200	50 @ 40(8)	1.5 @ 100(9)	2.0 @ 150	—
1N2789	400	50 @ 40(8)	1.5 @ 100(9)	2.0 @ 150	—
1N2793	50	5 @ 150	1.25 @ 15	5 @ 150	3
1N2794	100	5 @ 150	1.25 @ 15	5 @ 150	3
1N2795	150	5 @ 150	1.25 @ 15	5 @ 150	3
1N2796	200	5 @ 150	1.25 @ 15	5 @ 150	3
1N2797	250	5 @ 150	1.25 @ 15	5 @ 150	3
1N2798	300	5 @ 150	1.25 @ 15	5 @ 150	3
1N2799	350	5 @ 150	1.25 @ 15	5 @ 150	3
1N2800	400	5 @ 150	1.25 @ 15	5 @ 150	3
1N3208	50	15 @ 150	1.5 @ 40	10 @ 150	3
1N3209	100	15 @ 150	1.5 @ 40	10 @ 150	3

Notes: (3) Reverse polarity (anode to stud) available; add suffix R
 (4) V_F full cycle average (7) At 25°C Ambient (8) Ambient temperature
 (9) At 25°C case (10) Base temperature (13) At 100°C Ambient (16) Case temperature
 (24) At 150°C Ambient •(25) At 150°C Base

discrete
devices
T-01-01



semitron hot line

TOLL FREE NUMBER 800-777-3960

silicon rectifiers cont'd

stud mounted silicon power rectifiers
DO-5 case style — (cont'd)

Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) Case Temp. (°C)	Maximum Forward Voltage (volts) Forward Current (Amps)	Reverse Current (mA) Case Temp. (°C)	Notes
1N3210	200	15 @ 150	1.5 @ 40	10 @ 150	3
1N3211	300	15 @ 150	1.5 @ 40	10 @ 150	3
1N3212	400	15 @ 150	1.5 @ 40	10 @ 150	3
1N3213	500	15 @ 150	1.5 @ 40	10 @ 150	3
1N3214	600	15 @ 150	1.5 @ 40	10 @ 150	3
1N3765	700	35 @ 140	1.8 @	5 @ 140(10)	3
1N3766	800	35 @ 140	1.8 @	5 @ 140(10)	3
1N3767	900	35 @ 140	1.8 @	5 @ 140(10)	3
1N3768	1000	35 @ 130	1.8 @	5 @ 140(10)	3
1N4525	200	35 @ 115	1.4 @ 35	3.5 @ 115	—
1N4526	400	35 @ 115	1.4 @ 35	3.5 @ 115	—
1N4527	600	35 @ 115	1.4 @ 35	3.5 @ 115	—
1N4528	800	35 @ 115	1.4 @ 35	3.0 @ 115	—
1N4529	1000	35 @ 115	1.4 @ 35	2.5 @ 115	—
1N4530	1200	35 @ 115	1.4 @ 35	2.0 @ 115	—

DO-8 case style

TYPE	MAX. CONT. WORKING VOLTAGE (VOLTS)	MAX. D.C. OUTPUT CURRENT (AMPS)	MAX. D.C. CURRENT @ Tc(°C)	1 CYCLE CURRENT SURGE (PEAK AMPS)
1N3288	100	100	130	1600
1N3288A	100	100	130	2300
1N3289	200	100	130	1600
1N3289A	200	100	130	2300
1N3290	300	100	130	1600
1N3290A	300	100	130	2300
1N3291	400	100	130	1600
1N3291A	400	100	130	2300
1N3292	500	100	130	1600
1N3292A	500	100	130	1600
1N3292B	500	100	130	2300
1N3293	600	100	130	1600
1N3293A	600	100	130	2300
1N3294	800	100	130	1600
1N3294A	800	100	130	2300
1N3295	1000	100	130	1600
1N3295A	1000	100	130	2300
1N3296	1200	100	130	1600
1N3296A	1200	100	130	2300
1N3297	1400	100	130	1600
1N3297A	1400	100	130	2300
1N3972	200	104	120	1500
1N3973	400	104	120	1500
1N3974	600	104	120	1500
1N3975	800	104	120	1500
1N4587	100	150	110	3000
1N4588	200	150	110	3000
1N4589	300	150	110	3000
1N4590	400	150	110	3000
1N4591	500	150	110	3000
1N4592	600	150	110	3000
1N4593	800	150	110	3000
1N4594	1000	150	110	3000
1N4595	1200	150	110	3000
1N4596	1400	150	110	3000
1N4878	100	100	120	1500

DO-30 case style

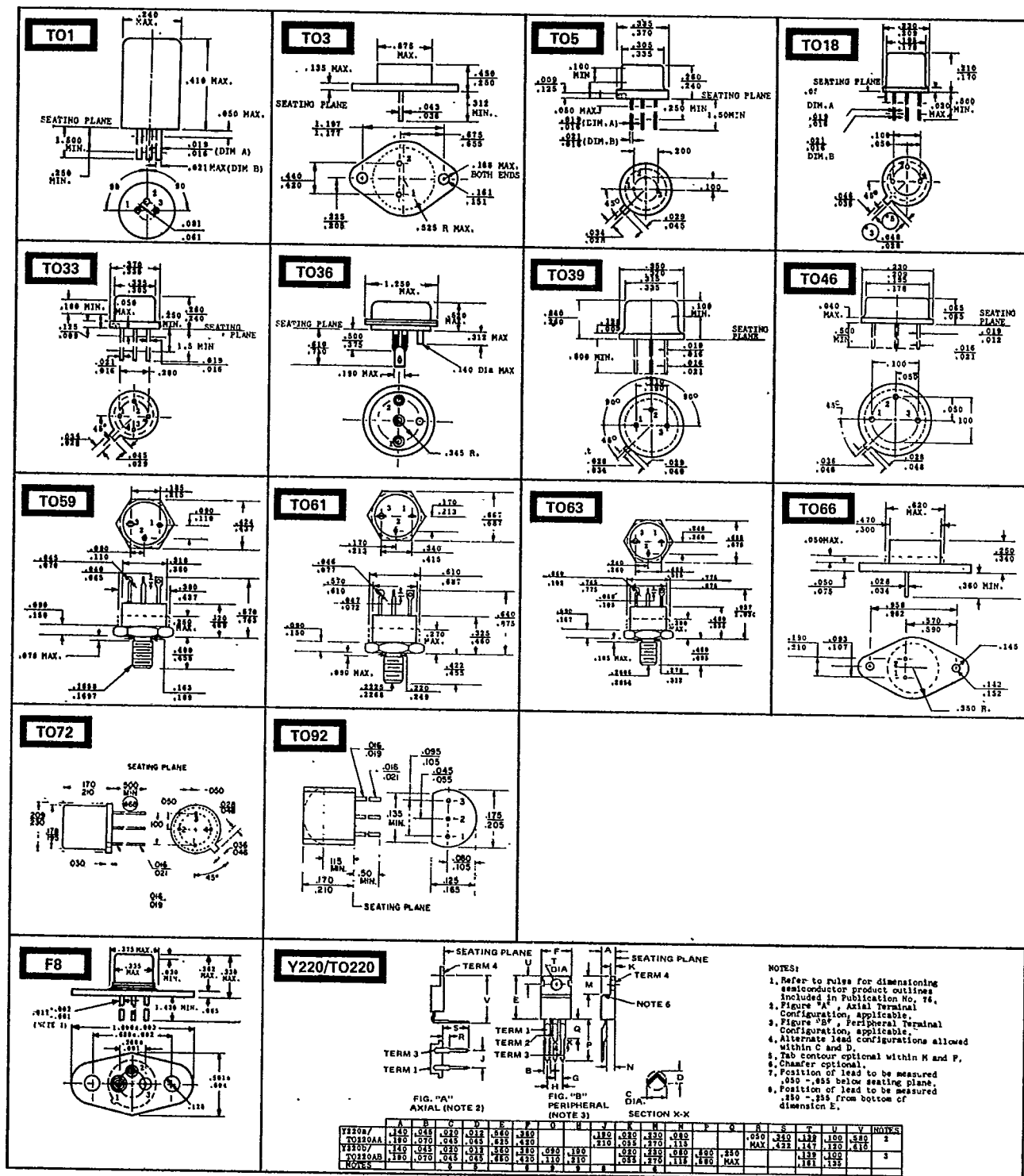
1N3085	100	150 @ 100	1.2 @ 150(17)	25 @ 150	3
1N3086	200	150 @ 100	1.2 @ 150(17)	17 @ 150	3
1N3087	300	150 @ 100	1.2 @ 150(17)	17 @ 150	3
1N3088	400	150 @ 100	1.2 @ 150(17)	17 @ 150	3
1N3089	500	150 @ 100	1.2 @ 150(17)	17 @ 150	3
1N3090	600	150 @ 100	1.2 @ 150(17)	17 @ 150	3
1N3091	800	150 @ 100	1.2 @ 150(17)	16 @ 150	3
1N3092	1000	150 @ 100	1.2 @ 150(17)	12 @ 150	3

DO-9 case style

Type	Maximum Peak Reverse Voltage (volts)	Maximum Average Forward Current (Amps) Case Temp. (°C)	Maximum Forward Voltage (volts) Forward Current (Amps)	Reverse Current (mA) Case Temp. (°C)	Notes
1N2054	50	250 @ 100	1.3 @ 250(20)	25 @ 135(8) @ 40V	3
1N2055	100	250 @ 100	1.3 @ 250(20)	25 @ 135(8) @ 80V	3
1N2056	150	250 @ 100	1.3 @ 250(20)	25 @ 135(8) @ 120V	3
1N2057	200	250 @ 100	1.3 @ 250(20)	17 @ 135(8) @ 160V	3
1N2058	250	250 @ 100	1.3 @ 250(20)	17 @ 135(8) @ 200V	3
1N2059	300	250 @ 100	1.3 @ 250(20)	17 @ 135(8) @ 240V	3
1N2060	350	250 @ 100	1.3 @ 250(20)	17 @ 135(8) @ 280V	3
1N2061	400	250 @ 100	1.3 @ 250(20)	17 @ 135(8) @ 320V	3
1N2062	450	250 @ 100	1.3 @ 250(20)	17 @ 135(8) @ 360V	3
1N2063	500	250 @ 100	1.3 @ 250(20)	17 @ 135(8) @ 400V	3
1N2064	600	250 @ 100	1.3 @ 250(20)	17 @ 135(8) @ 480V	3
1N2065	700	250 @ 100	1.3 @ 250(20)	17 @ 135(8) @ 560V	3
1N2066	800	250 @ 100	1.3 @ 250(20)	16 @ 135(8) @ 650V	3
1N2067	900	250 @ 100(8)	1.3 @ 250(20)	14 @ 135(8) @ 720V	3
1N2068	1000	250 @ 100(8)	1.3 @ 250(20)	12 @ 135(8) @ 800V	3
1N3175	1200	240 @ 100	1.4 @	15 @ 100(21)	—
1N3176	1400	240 @ 100	1.4 @	15 @ 100(21)	—
1N3260	50	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3261	100	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3262	150	160 @ 125	1.25 @ 160(22)	12 @ 125 @ 100V	3
1N3263	200	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3264	250	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3265	300	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3266	350	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3267	400	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3268	500	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3269	600	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3270	700	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3271	800	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3272	900	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3273	1000	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3274	1200	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3275	1400	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3276	1600	160 @ 125	1.25 @ 160(22)	12 @ 125	3
1N3735	100	250 @ 130	1.1 @ 250(23)	16 @ 130(10)	3
1N3736	200	250 @ 130	1.1 @ 250(23)	16 @ 130(10)	3
1N3737	300	250 @ 130	1.1 @ 250(23)	16 @ 130(10)	3
1N3738	400	250 @ 130	1.1 @ 250(23)	16 @ 130(10)	3
1N3739	500	250 @ 130	1.1 @ 250(23)	13 @ 130(10)	3
1N3740	600	250 @ 130	1.1 @ 250(23)	12 @ 130(10)	3
1N3741	800	250 @ 130	1.1 @ 250(23)	9.0 @ 130(10)	3
1N3742	1000	250 @ 130	1.1 @ 250(23)	7.0 @ 130(10)	3
1N3743	1200	250 @ 130	1.1 @ 250(23)	7.0 @ 130(10)	3
1N3744	1400	250 @ 130	1.1 @ 250(23)	7.0 @ 130(10)	3
1N4044	50	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4045	100	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4046	150	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4047	200	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4048	250	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4049	300	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4050	400	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4051	500	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4052	600	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4053	700	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4054	800	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4055	900	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4056	1000	275 @ 120	1.35 @ 275(19)	15 @ 120	3
1N4879	100	160 @ 120	1.3 @ 160(19)	10 @ 120	—
1N4880	100	250 @ 120	1.2 @ 250(19)	10 @ 120	—

Note: (3) Reverse polarity (anode to stud) available; add suffix R

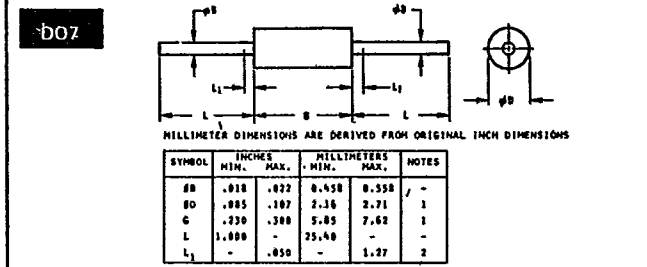
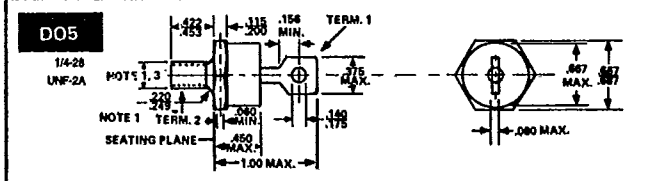
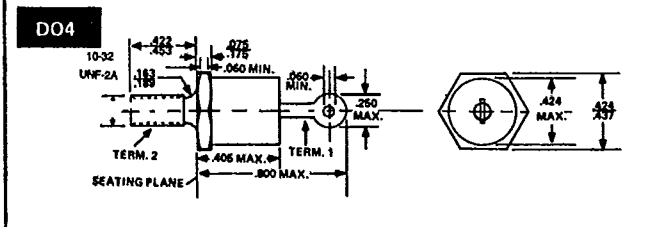
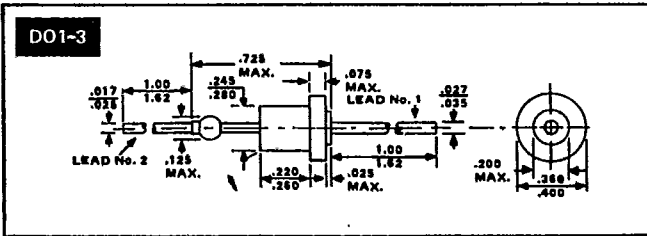
case outline drawings



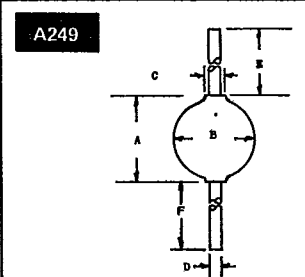
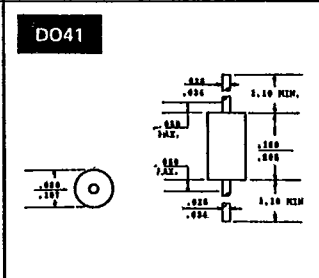
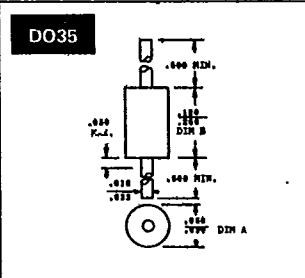
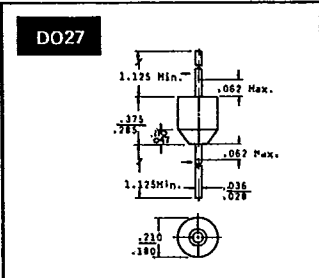
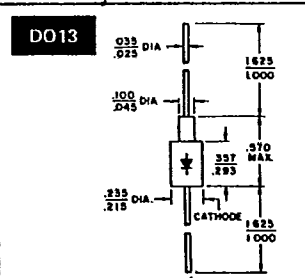
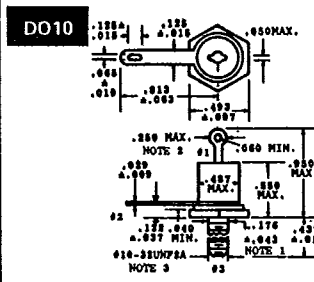
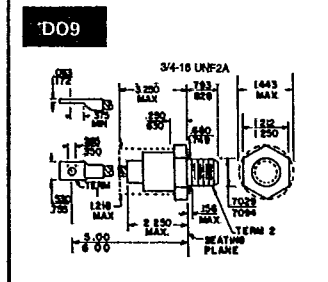
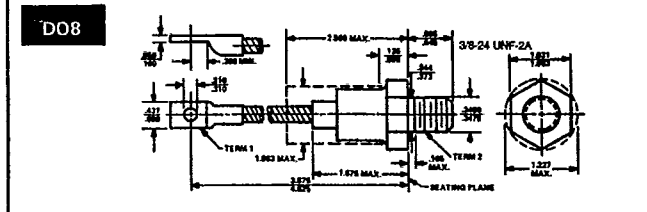
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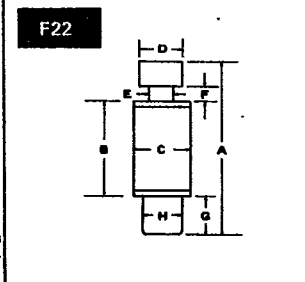
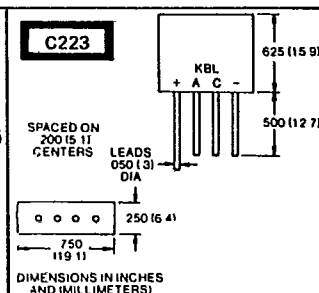
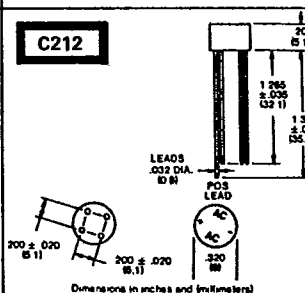
case outline drawings cont'd



SYMBOL	INCHES MIN.	INCHES MAX.	MILLIMETERS MIN.	MILLIMETERS MAX.	NOTES
B	.018	.023	0.458	0.558	-
D	.005	.007	2.16	2.71	1
C	.030	.038	5.05	7.62	1
L	1.000	-	25.40	-	-
L ₁	-	.050	-	1.27	2



	A	B	C	D	E	F
A249	.100	.100	.025	.055	1.000	0.400
A249M	.100	.100	.025	.055	.800	.200
A249B	.100	.100	.025	.055	.800	.200
A249C	.100	.100	.025	.055	.800	.200



	A	B	C	D	E	F	G	H
F22	.075	.050	.040	.040	.100	.050	.050	.050
F22A	.075	.050	.040	.040	.100	.050	.050	.050
F22B	1.40	1.40	.400	.250	.150	.040	.040	.040
F22C	2.40	1.40	.400	.250	.150	.040	.040	.040
F22D	2.40	2.30	.400	.250	.150	.040	.040	.040
F22E	2.34	2.44	.400	.250	.150	.040	.040	.040
F22F	2.81	2.71	.400	.250	.150	.040	.040	.040
F22G	1.18	.800	.400	.250	.150	.040	.040	.040