

SUSSEX

SEMICONDUCTOR, INC.

12251 TOWN LAKE DRIVE, FORT MYERS, FLORIDA, 33913 • TEL: (941) 768-6800 • FAX: (941) 768-6868

**.25 TO 100 AMP STANDARD
RECOVERY RECTIFIER DIE**

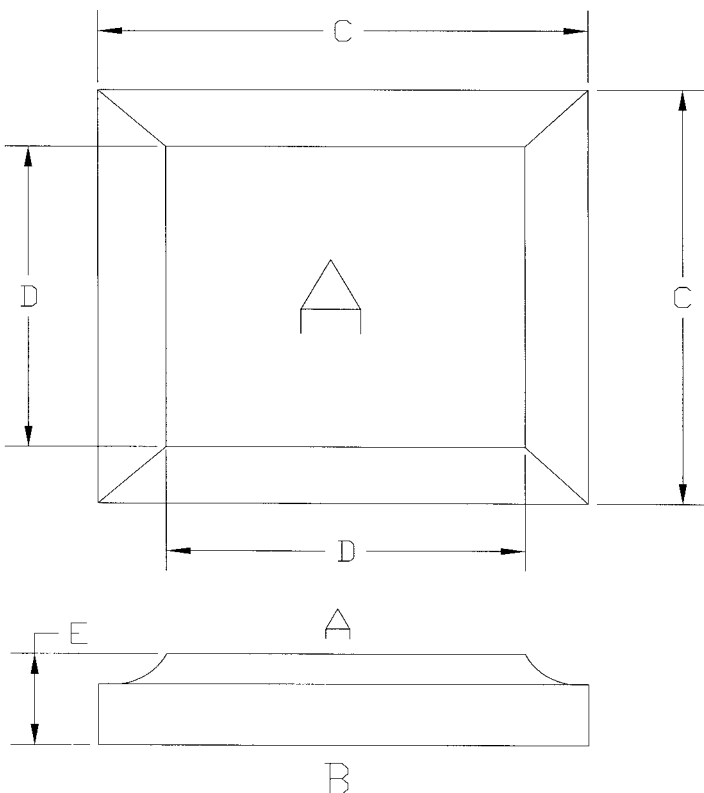
GLASS PASSIVATED STANDARD RECOVERY RECTIFIER DIE

REVERSE VOLTAGES - 50 TO 1000 VOLTS

FORWARD CURRENT - .25 TO 100 AMPS

.25 TO 100 AMP STANDARD RECOVERY DIE SPECIFICATIONS

- ◆ Standard Recovery Time Greater Than 500 nanoseconds
- ◆ Each Die Fully Glass Passivated: Needs No Encapsulation
- ◆ Each Die Individually Tested
- ◆ Unipolar
- ◆ Operating Temperature: -65 to 150°C
- ◆ Storage Temperature: -65 to 175°C
- ◆ Standard Metallization Ni-Ni-Au
- ◆ For Wire Bond Applications Gold Or Aluminum Metallization is Available
- ◆ Polarity: A-Anode B-Cathode



CUSTOM ORDERING SPECIFIER

DIE SPECIFICATIONS

S
UNIPOLAR
RECTIFIER
DIE

-
PEAK
INVERSE
VOLTAGE (PIV)

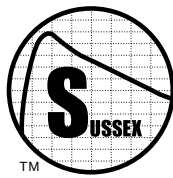
'A'-SIDE METALLIZATION	
CODE	MATERIAL
A	ALUMINUM
E	GOLD
BLANK	NI-NI-AU (STANDARD)

CONTACT FACTORY FOR ELECTRICAL
SPECIFICATIONS ON CUSTOM PARTS

TABLE 1B - UNIPOLAR DIE DIMENSION SPECIFICATIONS

◆ ALL TOLERANCES ARE $\pm .005"$ ◆ ALL DIMENSIONS ARE IN INCHES

SIZE CODE	C	D	E	FORWARD CURRENT	SIZE CODE	C	D	E	FORWARD CURRENT	SIZE CODE	C	D	E	FORWARD CURRENT
0.25	0.018	0.010	0.010	.25 AMPS	5	0.095	0.080	0.010	5 AMPS	30	0.180	0.160	0.010	30 AMPS
0.75	0.030	0.020	0.010	.75 AMPS	8	0.100	0.085	0.010	8 AMPS	35	0.200	0.180	0.010	35 AMPS
1	0.040	0.030	0.010	1 AMP	16	0.115	0.100	0.010	16 AMPS	40	0.227	0.200	0.010	40 AMPS
1.5	0.055	0.040	0.010	1.5 AMPS	20	0.125	0.110	0.010	20 AMPS	70	0.260	0.240	0.010	70 AMPS
2	0.070	0.055	0.010	2 AMPS	22	0.132	0.120	0.010	22 AMPS	100	0.360	0.330	0.010	100 AMPS
3	0.085	0.070	0.010	3 AMPS	25	0.165	0.150	0.010	25 AMPS					



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CONTINUED**

TABLE 2B - STANDARD RECOVERY RECTIFIER DIE ELECTRICAL SPECIFICATIONS (NOTE 1)

JEDEC PART NUMBER (NOTE 2)	SUSSEX PART NUMBER	MAX. AVERAGE FORWARD RECTIFIED OUTPUT CURRENT AMPS	MAX. INSTANTANEOUS FORWARD VOLTAGE		MAX. LEAKAGE CURRENT (I _R) @ V _{DC}		PEAK FORWARD SURGE CURRENT (NOTE 3) AMPS	PEAK INVERSE VOLTAGE (PIV) VOLTS	MAX. RMS INPUT VOLTAGE V _{RMS} VOLTS
			FORWARD VOLTAGE TEST CURRENT (I _F) AMPS	PEAK FORWARD VOLTAGE @ I _F VOLTS	V _{DC} VOLTS	I _R μA			
1N645	S.75-200	0.75	0.75	1.0	200	0.2	30	200	140
1N647	S.75-400	0.75	0.75	1.0	400	0.2	30	400	280
1N649	S.75-600	0.75	0.75	1.0	600	0.2	30	600	420
N/A	S.75-800	0.75	0.75	1.1	800	5	30	800	560
N/A	S.75-1000	0.75	0.75	1.1	1000	5	30	1000	700
1N4001	S1-50	1.0	1	1.2	50	5	40	50	35
1N4002	S1-100	1.0	1	1.2	100	5	40	100	70
1N4003	S1-200	1.0	1	1.2	200	5	40	200	140
1N4004	S1-400	1.0	1	1.2	400	5	40	400	280
1N4005	S1-600	1.0	1	1.2	600	5	40	600	420
1N4006	S1-800	1.0	1	1.2	800	5	40	800	560
1N4007	S1-1000	1.0	1	1.2	1000	5	40	1000	700
N/A	S1.5-200	1.5	1.5	1.2	20	5	50	200	140
N/A	S1.5-400	1.5	1.5	1.2	400	5	50	400	280
N/A	S1.5-600	1.5	1.5	1.2	600	5	50	600	420
N/A	S1.5-800	1.5	1.5	1.2	800	5	50	800	560
N/A	S1.5-1000	1.5	1.5	1.2	1000	10	50	1000	700
1N5402	S3-200	3.0	3.0	1.2	200	10	200	200	140
1N5404	S3-400	3.0	3.0	1.2	400	10	200	400	280
1N5406	S3-600	3.0	3.0	1.2	600	10	200	600	420
1N5407	S3-800	3.0	3.0	1.2	800	10	200	800	560
1N5408	S3-1000	3.0	3.0	1.2	1000	10	200	1000	700
N/A	S16-200	16	16	1.2	200	10	300	200	140
N/A	S16-400	16	16	1.2	400	10	300	400	280
N/A	S16-600	16	16	1.2	600	10	300	600	420
N/A	S16-800	16	16	1.3	800	10	300	800	560
N/A	S16-1000	16	16	1.3	1000	10	300	1000	700
N/A	S25-200	25	25	1.0	200	20	500	200	140
N/A	S25-600	25	25	1.2	600	20	500	600	420
N/A	S25-1000	25	25	1.4	1000	20	500	1000	700
N/A	S30-200	30	30	1.0	200	20	600	200	140
N/A	S30-600	30	30	1.2	600	20	600	600	420
N/A	S30-1000	30	30	1.4	1000	20	600	1000	700
N/A	S35-200	35	35	1.0	200	20	700	200	140
N/A	S35-600	35	35	1.2	600	20	700	600	420
N/A	S35-1000	35	35	1.4	1000	20	700	1000	700
N/A	S40-200	40	40	1.0	200	20	1000	200	140
N/A	S40-600	40	40	1.2	600	20	1000	600	420
N/A	S40-1000	40	40	1.4	1000	25	1000	1000	700
N/A	S70-200	70	70	1.0	200	20	1200	200	140
N/A	S70-600	70	70	1.2	600	20	1200	600	420
N/A	S70-1000	70	70	1.4	1000	25	1200	1000	700
N/A	S100-200	100	100	1.0	200	20	1800	200	140
N/A	S100-600	100	100	1.2	600	20	1800	600	420
N/A	S100-1000	100	100	1.4	1000	25	1800	1000	700

NOTES

NOTE 1: ♦ ELECTRICAL CHARACTERISTICS MEASURED AT A JUNCTION TEMPERATURE (T_J) OF 25°C UNLESS OTHERWISE STATED

NOTE 2: ♦ JEDEC PART NUMBERS REFER TO PACKAGED DEVICES. THE DIES INDICATED BY THESE NUMBERS, IF PROPERLY PACKAGED, WILL OPERATE WITH THE SAME PERFORMANCE

NOTE 3: ♦ PEAK FORWARD SURGE CURRENT MEASURED FROM A SINGLE SINE-WAVE BEING SUPERIMPOSED ON A RATED LOAD (JEDEC METHOD)



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FIGURE 1B - TYPICAL FORWARD CHARACTERISTICS

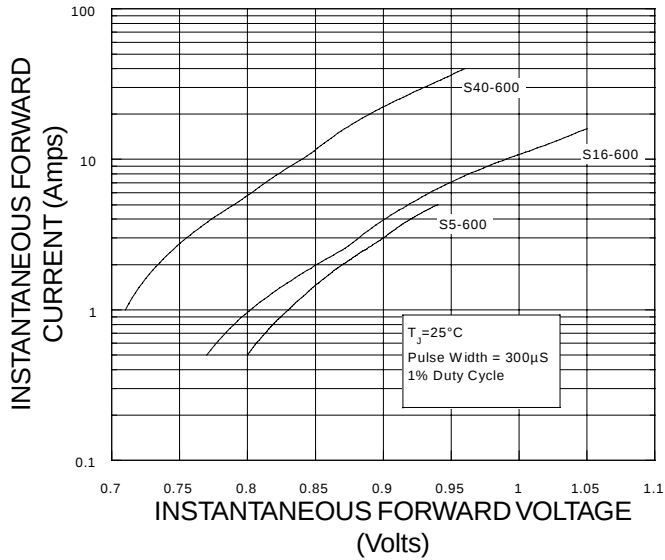


FIGURE 2B - TYPICAL REVERSE CHARACTERISTICS @25°C

