

January 16, 1998

TEL:805-498-2111 FAX:805-498-3804 WEB:http://www.semtech.com

**AXIAL LEADED, HERMETICALLY SEALED,  
5 WATT VOLTAGE REGULATORS****QUICK REFERENCE  
DATA**

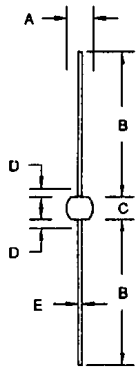
- Low dynamic impedance
- Hermetically sealed in Metoxilite fused metal oxide
- 5 Watt applications
- Low reverse leakage currents
- Small package

- $V_z$  nom = 6.8 - 120V
- $I_z$  = 39.5 - 700mA
- $Z_z$  = 0.75 - 70 $\Omega$
- $I_R$  = 2 - 150 $\mu$ A

**ELECTRIAL SPECIFICATIONS (@ 25°C UNLESS OTHERWISE SPECIFIED)**

Device Type	Breakdown Voltage $V_{BR}$ @ $I_z$ TEST			Zener Test Current $I_z$ TEST	Zener Imped. $Z_z$	Reverse Current @ $V_R$ TEST		Temp. Coeff <sup>t</sup> of $V_{(BR)}$ $\alpha_{Vz}$	Maximum Reverse Current $I_R$
	nom	min	max			$I_R$	$V_R$ TEST		
	Volts	Volts	Volts	mA	Ohms	$\mu$ A	Volts	%/°C	mA
1N4954 SX6.8	6.8	6.46	7.14	175	0.75	150	5.2	.05	700
1N4955 SX7.5	7.5	7.13	7.87	175	0.75	100	5.7	.06	630
1N4956 SX8.2	8.2	7.79	8.61	150	0.75	50	6.2	.06	580
1N4957 SX9.1	9.1	8.65	9.55	150	1.0	25	6.9	.06	520
1N4958 SX10	10	9.50	10.50	125	1.5	25	7.6	.07	475
1N4959 SX11	11	10.45	11.55	125	1.5	10	8.4	.07	430
1N4960 SX12	12	11.40	12.60	100	1.5	10	9.1	.07	395
1N4961 SX13	13	12.35	13.65	100	2.0	10	9.9	.08	365
1N4962 SX15	15	14.25	15.75	75	2.5	5	11.4	.08	315
1N4963 SX16	16	15.20	16.80	75	2.5	5	12.2	.08	294
1N4964 SX18	18	17.10	18.90	65	2.5	5	13.7	.085	264
1N4965 SX20	20	19.0	21.0	65	2.5	2	15.2	.085	237
1N4966 SX22	22	20.9	23.1	50	2.5	2	16.7	.085	216
1N4967 SX24	24	22.8	25.2	50	3.0	2	18.2	.09	198
1N4968 SX27	27	25.7	28.3	50	3.0	2	20.6	.09	176
1N4969 SX30	30	28.5	31.5	40	3.0	2	22.8	.09	158
1N4970 SX33	33	31.4	34.6	40	4.0	2	25.1	.095	144
1N4971 SX36	36	34.2	37.8	30	5.0	2	27.4	.095	132
1N4972 SX39	39	37.1	40.9	30	5.0	2	29.7	.095	132
1N4973 SX43	43	40.9	45.1	30	6.0	2	32.7	.095	110
1N4974 SX47	47	44.7	49.3	25	7.0	2	35.8	.095	100
1N4975 SX51	51	48.5	53.5	25	8.0	2	38.8	.095	92
1N4976 SX56	56	53.2	58.8	20	9.0	2	42.6	.095	84
1N4977 SX62	62	58.9	65.1	20	10.0	2	47.1	.100	76
1N4978 SX68	68	64.6	71.4	20	15.0	2	51.7	.100	70
1N4979 SX75	75	71.3	78.7	20	20.0	2	56.0	.100	63
1N4980 SX82	82	77.9	86.1	15	30.0	2	62.2	.100	58
1N4981 SX91	91	86.5	95.5	15	35.0	2	69.2	.100	52.5
1N4982 SX100	100	95.0	105.0	12	40.0	2	76.0	.100	47.5
1N4983 SX110	110	104.5	115.0	12	55.0	2	83.6	.100	43
1N4984 SX120	120	114.0	126.0	10	70.0	2	91.2	.100	39.5

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DIM <sup>n</sup>	DIMENSIONS				NOTE
	MM		INCHES		
A	2.16	3.56	.085	.140	-
B	25.4	33.0	1.00	1.30	-
C	3.56	4.70	.140	.185	-
D	-	.80	-	.030	1
E	.91	1.07	.036	.042	-

NOTES:  
1. LEAD DIAMETER UNCONTROLLED OVER THIS REGION.

OPERATING TEMP -198.3°C to +200°C  
STORAGE TEMP -198.3°C to +200°C

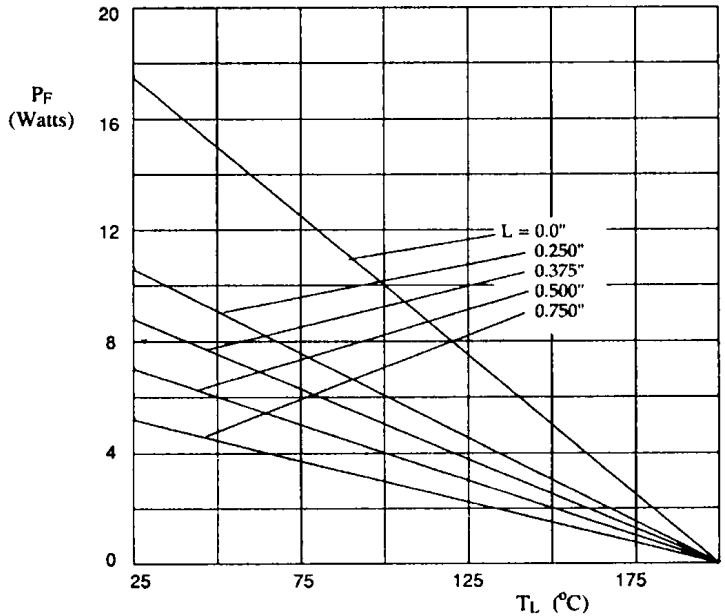


Figure 1. Maximum power versus lead temperature.

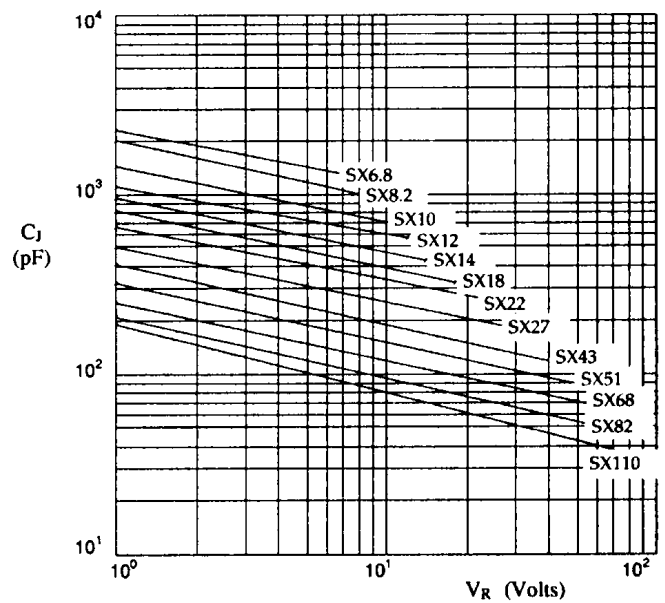
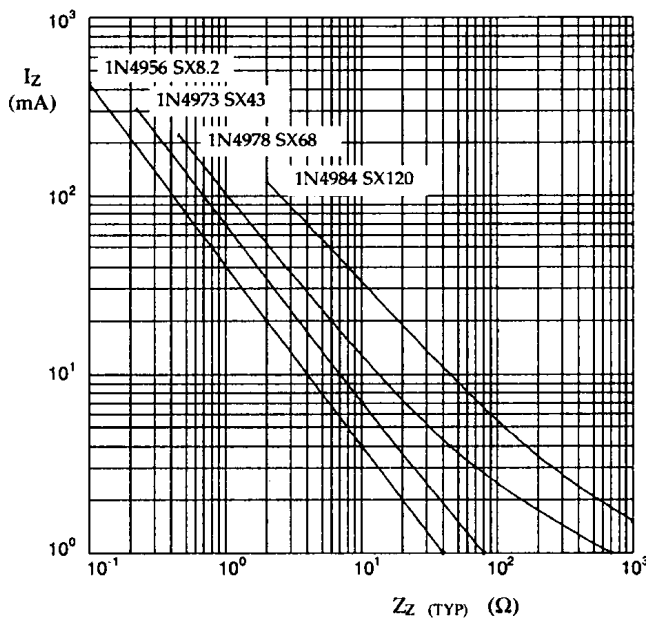


Fig 3. Typical junction capacitance versus reverse voltage.