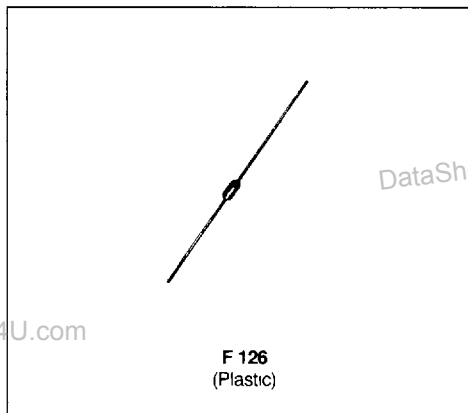




S G S-THOMSON

ZENER DIODES

- VOLTAGE RANGE: 3.3V TO 200V
- HERMETICALLY SEALED PLASTIC CASE
- PACKAGE ACCORDING TO NORMALIZATION
CCTU : F 126
- PRO ELECTRON REGISTRATION
- HIGH SURGE CAPABILITY (20W @10ms)


DESCRIPTION

1.5W silicon Zener diodes.

ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit
P_{tot}	Power Dissipation*	$T_{amb} = 60^{\circ}\text{C}$ 1.5	W
I_{ZM}	Continuous Reverse Current*	$T_{amb} = 60^{\circ}\text{C}$ See page 2	mA
I_{ZSM}	Peak Reverse Current	$T_{amb} = 25^{\circ}\text{C}$ See page 2	A
T_{stg} T_j	Storage and Junction Temperature Range	- 65 to 150	$^{\circ}\text{C}$
T_L	Maximum Lead Temperature for Soldering during 3s at 5mm from case	300	$^{\circ}\text{C}$

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
$R_{th(j-a)}$	Junction-ambient*	60	$^{\circ}\text{C/W}$

* On infinite heatsink with 10mm lead length

Types	V _{ZT} /I _{ZT} *		r _{ZT} /I _{ZT}	I _{ZT}	∞ V _Z		I _R /V _R	V _R	I _{ZM}	I _{ZSM}
	min	max	max		min	max	max		T _{amb} 60°C	
	(V)	(V)	(Ω)	(mA)	(10 ⁻⁴ /°C)		(μA)	(V)	(mA)	(A)
	(1)		(1)	(1)						(3)
BZY 97 C 3V3	3.1	3.5	10	100	- 10	2			429	4.4
BZY 97 C 3V6	3.4	3.8	10	100	- 8	2			395	4.0
BZY 97 C 3V9	3.7	4.1	7	100	- 7	2			366	3.8
BZY 97 C 4V3	4.0	4.6	7	100	- 7	3			327	3.3
BZY 97 C 4V7	4.4	5.0	7	100	- 7	4			300	3.1
P BZY 97 C 5V1	4.8	5.4	5	100	- 6	5			278	2.8
P BZY 97 C 5V6	5.2	6.0	2	100	- 3	5	1	1	250	2.6
P BZY 97 C 6V2	5.8	6.6	2	100	- 1	6	1	1	227	2.3
P BZY 97 C 6V8	6.4	7.2	2	100	0	7	1	1	208	2.1
BZY 97 C 7V5	7.0	7.9	2	100	0	7	0.5	2	190	1.9
BZY 97 C 8V2	7.7	8.7	2	100	3	8	0.5	3.5	172	1.8
BZY 97 C 9V1	8.5	9.6	4	50	3	8	0.5	3.5	156	1.6
BZY 97 C 10	9.4	10.6	4	50	5	9	0.5	5	142	1.5
BZY 97 C 11	10.4	11.6	7	50	5	10	0.5	5	129	1.3
P BZY 97 C 12	11.4	12.7	7	50	5	10	0.5	7	118	1.2
P BZY 97 C 13	12.4	14.1	10	50	5	10	0.5	7	106	1.1
P BZY 97 C 15	13.8	15.6	10	50	5	10	0.5	10	96	1.0
BZY 97 C 16	15.3	17.1	15	25	6	11	0.5	10	88	0.90
P BZY 97 C 18	16.8	19.1	15	25	6	11	0.5	10	79	0.81
P BZY 97 C 20	18.8	21.2	15	25	6	11	0.5	10	71	0.73
P BZY 97 C 22	20.8	23.3	15	25	6	11	0.5	12	64	0.66
P BZY 97 C 24	22.8	25.6	15	25	6	11	0.5	12	59	0.60
P BZY 97 C 27	25.1	28.9	15	25	6	11	0.5	14	52	0.53
P BZY 97 C 30	28	32	15	25	6	11	0.5	14	47	0.48
P BZY 97 C 33	31	35	15	25	6	11	0.5	17	43	0.44
P BZY 97 C 36	34	38	40	10	6	11	0.5	17	40	0.40
BZY 97 C 39	37	41	40	10	6	11	0.5	20	37	0.38
BZY 97 C 43	40	46	45	10	7	12	0.5	20	33	0.33
P BZY 97 C 47	44	50	45	10	7	12	0.5	24	30	0.31
BZY 97 C 51	48	54	60	10	7	12	0.5	24	28	0.28
BZY 97 C 56	52	60	60	10	7	12	0.5	28	25	0.26
P BZY 97 C 62	58	66	80	10	7	12	0.5	28	23	0.23
P BZY 97 C 68	64	72	80	10	7	12	0.5	34	21	0.21
BZY 97 C 75	70	79	100	10	7	12	0.5	34	19	0.19
BZY 97 C 82	77	87	100	10	7	12	0.5	41	17	0.18
BZY 97 C 91	85	96	200	5	8	13	0.5	41	16	0.16
BZY 97 C 100	94	106	200	5	8	13	0.5	50	14	0.15
BZY 97 C 110	104	116	250	5	8	13	0.5	50	13	0.13
BZY 97 C 120	114	127	250	5	8	13	0.5	60	12	0.12
P BZY 97 C 130	124	141	300	5	8	13	0.5	60	11	0.11
P BZY 97 C 150	138	156	300	5	8	13	0.5	75	10	0.10
BZY 97 C 160	153	171	350	5	8	13	0.5	75	9	0.09
BZY 97 C 180	168	191	350	5	8	13	0.5	90	8	0.08
P BZY 97 C 200	188	212	350	5	8	13	0.5	90	7	0.07

(1) Pulse test t_p ≤ 50ms δ < 2%
 (2) On infinite heatsink d = 10mm
 (3) Rectangular waveform (t_p = 10ms)
 The regulation voltages are defined according to the E24 series
 P Preferred voltages
 Forward voltage drop V_F ≤ 1.2V (T_{amb} = 25°C I_F = 200mA).

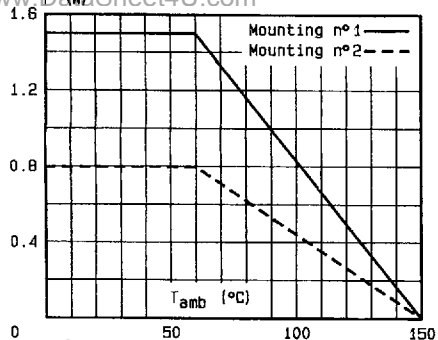


Fig.1 - Power dissipation versus ambient temperature.

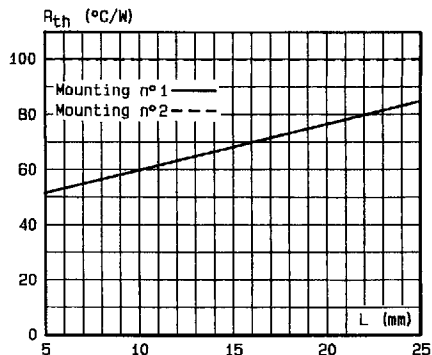


Fig.2 - Thermal resistance versus lead length.

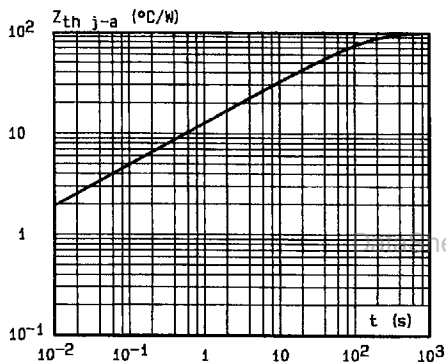


Fig.3 - Transient thermal impedance junction-ambient for mounting n°2 versus pulse duration ($L = 10$ mm).

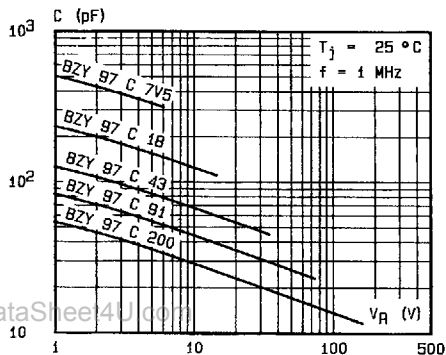


Fig.4 - Capacitance versus reverse applied voltage.

Mounting n°1
INFINITE HEATSINK

Mounting n°2
PRINTED CIRCUIT

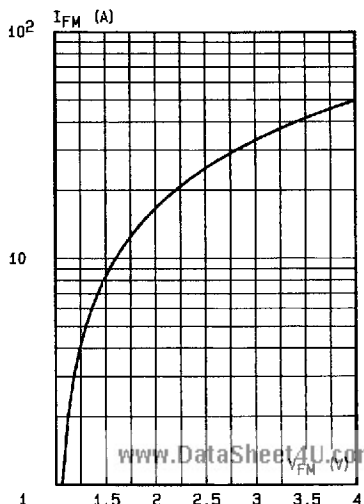
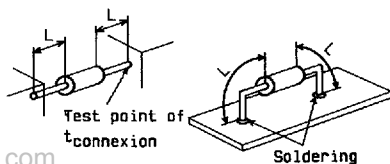


Fig.5 - Peak forward current versus peak forward voltage drop (typical values).

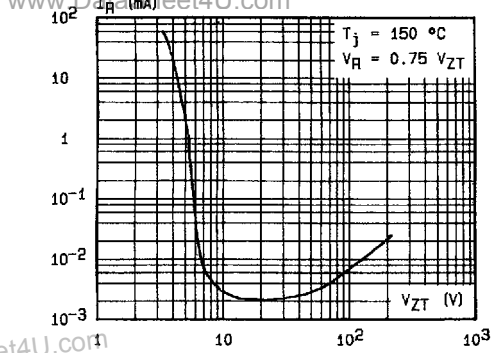


Fig. 6 - Reverse current versus regulation voltage (typical values).

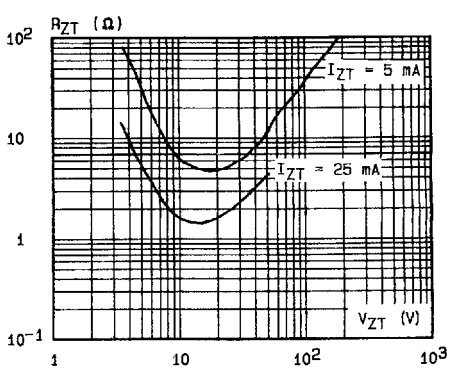


Fig. 7 - Differential resistance versus regulation voltage (typical values).

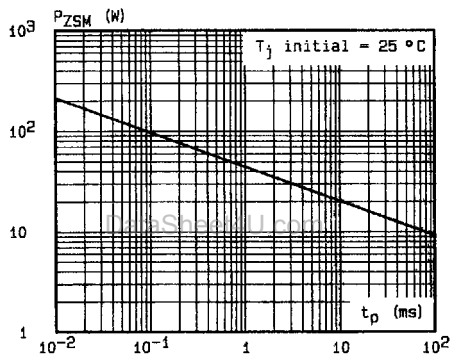
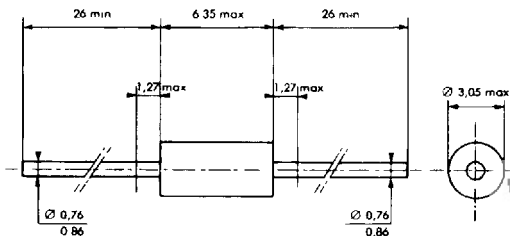


Fig. 8 - Peak pulse power versus pulse duration (rectangular wave form) (maximum values).

PACKAGE MECHANICAL DATA

F 126 Plastic



Cooling method by convection (method A)

Marking clear ring at cathode end

Weight 0.4g