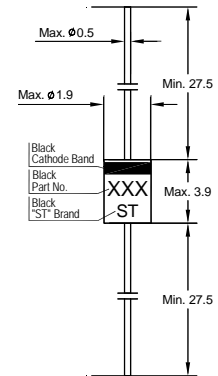


# 1N4689...1N4713

## Silicon Epitaxial Planar Zener Diodes



Glass Case DO-35  
Dimensions in mm

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

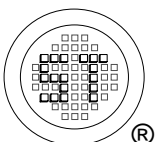
Parameter	Symbol	Value	Unit
Power Dissipation	$P_{\text{tot}}$	500	mW
Junction Temperature	$T_j$	175	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 65 to + 175	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$ ( $V_F = 1.5\text{ V Max. at } I_F = 100\text{ mA}$ )

Type	Zener Voltage <sup>1)</sup> $V_Z$ (V)				Maximum Reverse Current		Maximum Zener Current <sup>2)</sup> $I_{ZM}$ (mA)
	Nom.	Min.	Max.	at $I_{ZT}$ ( $\mu\text{A}$ )	$I_R$ ( $\mu\text{A}$ )	at $V_R$ (V)	
1N4689	5.1	4.85	5.35	50	10	3	55
1N4690	5.6	5.32	5.88	50	10	4	50
1N4691	6.2	5.89	6.51	50	10	5	45
1N4692	6.8	6.46	7.14	50	10	5.1	35
1N4693	7.5	7.13	7.88	50	10	5.7	31.8
1N4694	8.2	7.79	8.61	50	1	6.2	29
1N4695	8.7	8.27	9.14	50	1	6.6	27.4
1N4696	9.1	8.65	9.56	50	1	6.9	26.2
1N4697	10	9.5	10.5	50	1	7.6	24.8
1N4698	11	10.45	11.55	50	0.05	8.4	21.6
1N4699	12	11.4	12.6	50	0.05	9.1	20.4
1N4700	13	12.35	13.65	50	0.05	9.8	19
1N4701	14	13.3	14.7	50	0.05	10.6	17.5
1N4702	15	14.25	15.75	50	0.05	11.4	16.3
1N4705	18	17.1	18.9	50	0.05	13.6	13.2
1N4713	30	28.5	31.5	50	0.01	22.8	7.9

<sup>1)</sup> Tested with pulses  $t_p = 20\text{ ms}$ .

<sup>2)</sup> Maximum Zener current ratings are based on maximum zener voltage of the individual units.



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103

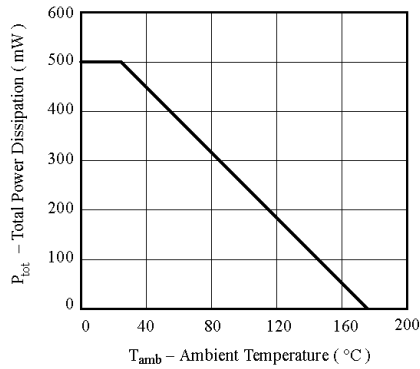


ISO 14001:2004  
Certificate No. 7116

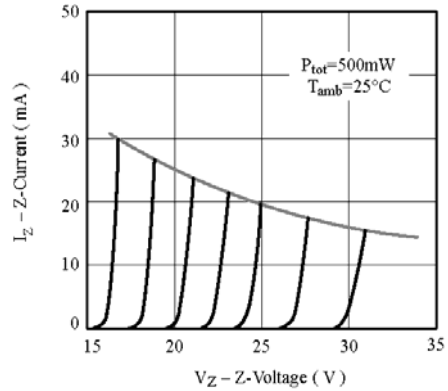


ISO 9001:2000  
Certificate No. 0506086

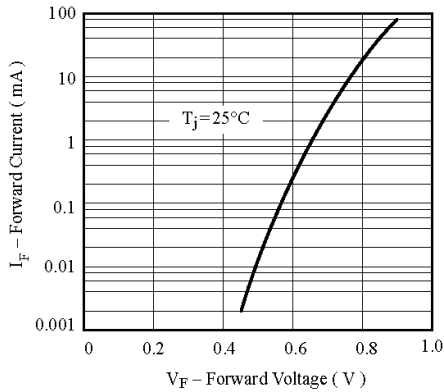
Dated : 05/03/2008



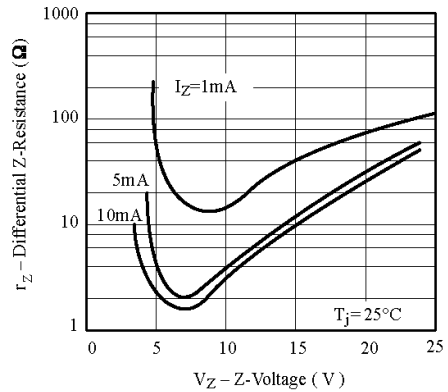
Total Power Dissipation vs. Ambient Temperature



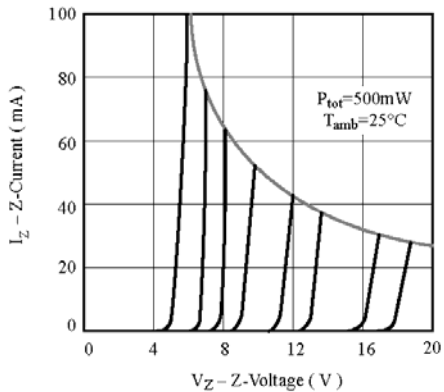
Z-Current vs. Z-Voltage



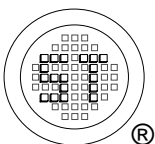
Forward Current vs. Forward Voltage



Differential Z-Resistance vs. Z-Voltage



Z-Current vs. Z-Voltage



## SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506088