

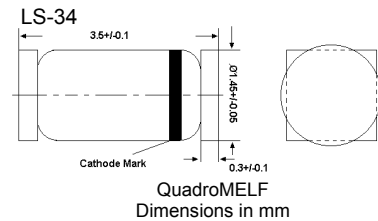
# BTZS4684...BTZS4717

## SILICON EPITAXIAL PLANAR ZENER DIODES

for Voltage Stabilization Applications

### Features

- Zener voltage specified at 50  $\mu$ A
- Very high stability



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

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

### Characteristics at $T_a = 25^\circ\text{C}$

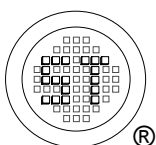
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 100$ mA	$V_F$	1.5	V

### Characteristics at $T_a = 25^\circ\text{C}$

Type	Zener Voltage			Maximum Zener Current		Reverse Current	
	$V_Z$ <sup>1)</sup>			$I_Z$ ( $\mu$ A)	$I_{ZM}$ <sup>2)</sup> Max. (mA)	$I_R$ Max. ( $\mu$ A)	at $V_R$ (V)
	Nom. (V)	Min. (V)	Max. (V)				
BTZS4684	3.3	3.135	3.465	50	80	7.5	1.5
BTZS4689	5.1	4.845	5.355	50	55	10	3
BTZS4690	5.6	5.32	5.88	50	50	10	4
BTZS4691	6.2	5.89	6.51	50	45	10	5
BTZS4692	6.8	6.46	7.14	50	35	10	5.1
BTZS4693	7.5	7.125	7.875	50	31.8	10	5.7
BTZS4694	8.2	7.79	8.61	50	29	1	6.2
BTZS4696	9.1	8.645	9.555	50	26.2	1	6.9
BTZS4697	10	9.5	10.5	50	24.8	1	7.6
BTZS4698	11	10.45	11.55	50	21.6	0.05	8.4
BTZS4699	12	11.4	12.6	50	20.4	0.05	9.1
BTZS4700	13	12.35	13.65	50	19	0.05	9.8
BTZS4702	15	14.25	15.75	50	16.3	0.05	11.4
BTZS4703	16	15.2	16.8	50	15.4	0.05	12.1
BTZS4705	18	17.1	18.9	50	13.2	0.05	13.6
BTZS4707	20	19	21	50	11.9	0.01	15.2
BTZS4708	22	20.9	23.1	50	10.8	0.01	16.7
BTZS4709	24	22.8	25.2	50	9.9	0.01	18.2
BTZS4711	27	25.65	28.35	50	8.8	0.01	20.4
BTZS4713	30	28.5	31.5	50	7.9	0.01	22.8
BTZS4714	33	31.35	34.65	50	7.2	0.01	25
BTZS4715	36	34.2	37.8	50	6.6	0.01	27.3
BTZS4716	39	37.05	40.95	50	6.1	0.01	29.6
BTZS4717	43	40.85	45.15	50	5.5	0.01	32.6

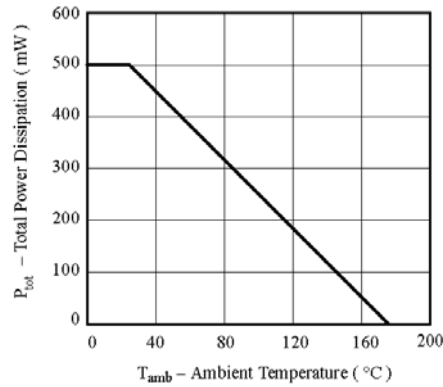
<sup>1)</sup> Tested with pulses  $t_p = 20$  ms.

<sup>2)</sup> Maximum zener current ratings ( $I_{ZM}$ ). Maximum zener current ratings are based on maximum zener voltage of the individual units.

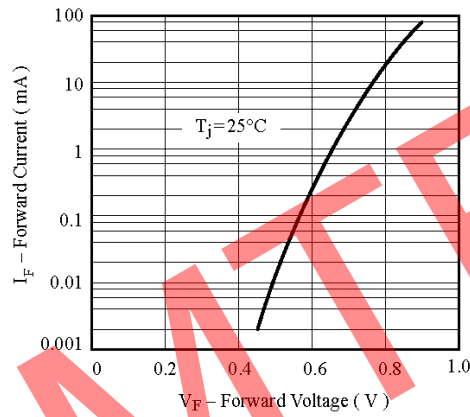


**SEMTECH ELECTRONICS LTD.**  
Subsidiary of Sino-Tech International (BVI) Limited

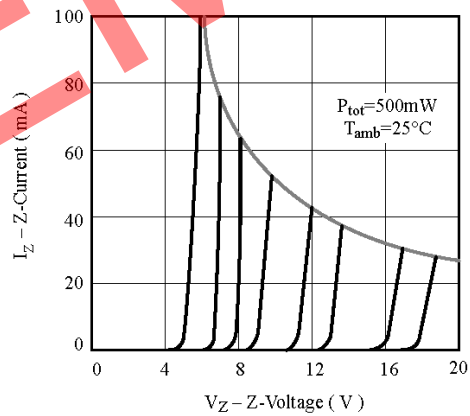




Total Power Dissipation vs. Ambient Temperature



Forward Current vs. Forward Voltage



Z-Current vs. Z-Voltage

