

TZS4678 - TZS4717

V_Z : 1.8 to 43 V

P_D : 500mW

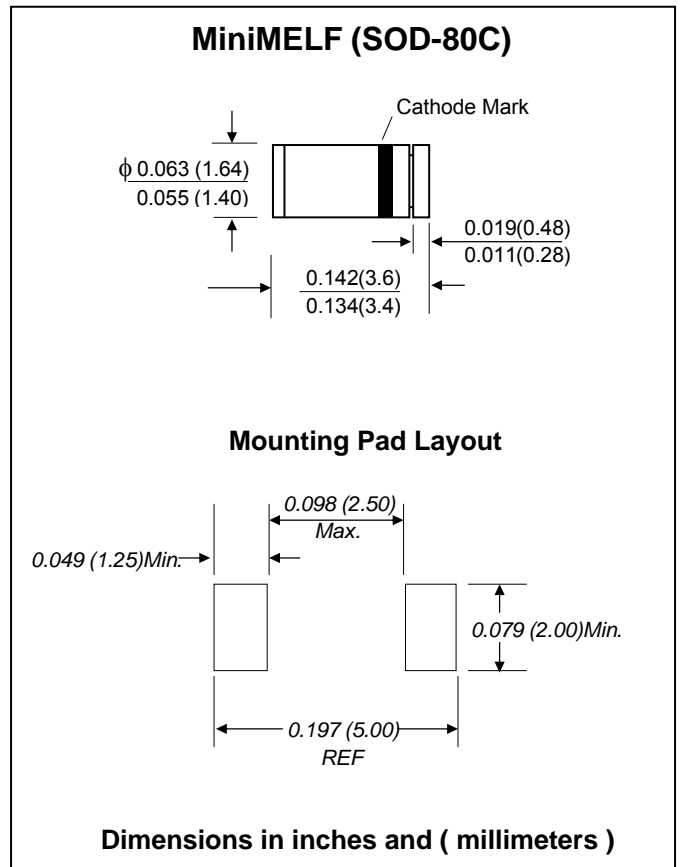
FEATURES :

- Silicon planar zener diodes
- For use as low voltage stabilizer or voltage reference.
- Standard Zener voltage tolerance is $\pm 5\%$
- **Pb Free / RoHS Compliant**

MECHANICAL DATA :

- * Case : MiniMELF Glass Case (SOD-80C)
- * Weight : 0.05 gram (approximately)

SMALL SIGNAL ZENER DIODES



Maximum Ratings and Thermal Characteristics

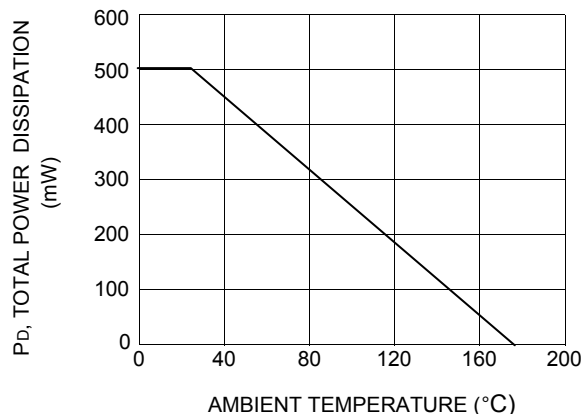
Rating at 25 °C ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Power Dissipation at $R_{\theta JA} \leq 300K/W$	P_D	500	mW
Maximum Forward Voltage at $I_F = 100$ mA.	V_F	1.5	V
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500 ⁽¹⁾	K/W
Operating Junction temperature	T_J	175	°C
Storage temperature range	T_{STG}	-65 to + 175	°C

Notes:

- (1) PC board 50mm x 50mm x 1.6mm

Fig. 1 - POWER TEMPERATURE DERATING CURVE





ELECTRICAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)

Type	Zener Voltage V _Z @ I _{ZT}				Maximum DC Zener Current	Voltage Regulation	Maximum Reverse Leakage Current	
	Min. (V)	Nom. ⁽¹⁾ (V)	Max. (V)	I _{ZT} (μA)	I _{ZM} ⁽²⁾ (mA)	ΔV _Z ⁽⁴⁾ (V)	I _R ⁽³⁾ (μA)	at V _R (V)
TZS4678	1.710	1.8	1.89	50	120	0.70	7.5	1.0
TZS4679	1.900	2.0	2.10	50	110	0.70	5.0	1.0
TZS4680	2.090	2.2	2.310	50	100	0.75	4.0	1.0
TZS4681	2.280	2.4	2.520	50	95.0	0.80	2.0	1.0
TZS4682	2.565	2.7	2.835	50	90.0	0.85	1.0	1.0
TZS4683	2.850	3.0	3.150	50	85.0	0.90	0.8	1.0
TZS4684	3.135	3.3	3.465	50	80.0	0.95	7.5	1.5
TZS4685	3.420	3.6	3.780	50	75.0	0.95	7.5	2.0
TZS4686	3.705	3.9	4.095	50	70.0	0.97	5.0	2.0
TZS4687	4.085	4.3	4.515	50	65.0	0.99	4.0	2.0
TZS4688	4.465	4.7	4.935	50	60.0	0.99	10	3.0
TZS4689	4.845	5.1	5.355	50	55.0	0.97	10	3.0
TZS4690	5.320	5.6	5.880	50	50.0	0.96	10	4.0
TZS4691	5.890	6.2	6.510	50	45.0	0.95	10	5.0
TZS4692	6.460	6.8	7.140	50	35.0	0.90	10	5.10
TZS4693	7.125	7.5	7.875	50	31.8	0.75	10	5.70
TZS4694	7.790	8.2	8.610	50	29.0	0.50	1.0	6.20
TZS4695	8.265	8.7	9.135	50	27.4	0.10	1.0	6.60
TZS4696	8.645	9.1	9.555	50	26.2	0.08	1.0	6.90
TZS4697	9.500	10	10.50	50	24.8	0.10	1.0	7.60
TZS4698	10.45	11	11.55	50	21.6	0.11	0.05	8.40
TZS4699	11.40	12	12.60	50	20.4	0.12	0.05	9.10
TZS4700	12.35	13	13.65	50	19.0	0.13	0.05	9.80
TZS4701	13.30	14	14.70	50	17.5	0.14	0.05	10.6
TZS4702	14.25	15	15.75	50	16.3	0.15	0.05	11.4
TZS4703	15.20	16	16.80	50	15.4	0.16	0.05	12.1
TZS4704	16.15	17	17.85	50	14.5	0.17	0.05	12.9
TZS4705	17.10	18	18.90	50	13.2	0.18	0.05	13.6
TZS4706	18.05	19	19.95	50	12.5	0.19	0.05	14.4
TZS4707	19.00	20	21.00	50	11.9	0.20	0.01	15.2
TZS4708	20.90	22	23.10	50	10.8	0.22	0.01	16.7
TZS4709	22.80	24	25.20	50	9.90	0.24	0.01	18.2
TZS4710	23.75	25	26.25	50	9.50	0.25	0.01	19.0
TZS4711	25.65	27	28.35	50	8.80	0.27	0.01	20.4
TZS4712	26.60	28	29.40	50	8.50	0.28	0.01	21.2
TZS4713	28.50	30	31.50	50	7.90	0.30	0.01	22.8
TZS4714	31.35	33	34.65	50	7.20	0.33	0.01	25.0
TZS4715	34.20	36	37.80	50	6.60	0.36	0.01	27.3
TZS4716	37.05	39	40.95	50	6.10	0.39	0.01	29.6
TZS4717	40.85	43	45.15	50	5.50	0.43	0.01	32.6

Notes :

- (1) The type number shown have a standard tolerance of ± 5% on the nominal zener voltage
- (2) Maximum zener current ratings are based on maximum zener voltage of the individual unit.
- (3) Reverse leakage current are guaranteed and measured at V_R as shown on the table
- (4) Voltage change is equal to the difference between V_Z at 100 μA and V_Z at 10 μA.