Zener diode

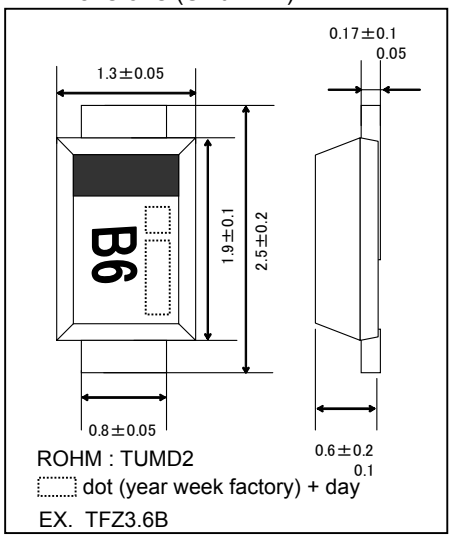
TFZ series

●Applications
Voltage regulation

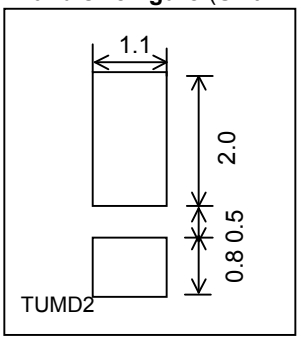
●Features
1) Small power mold type (TUMD2)
2) High reliability
3) By chip-mouter,
automatic mouting is possible.

●Construction
Silicon epitaxial planer

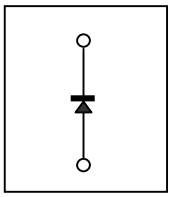
●Dimensions (Unit : mm)



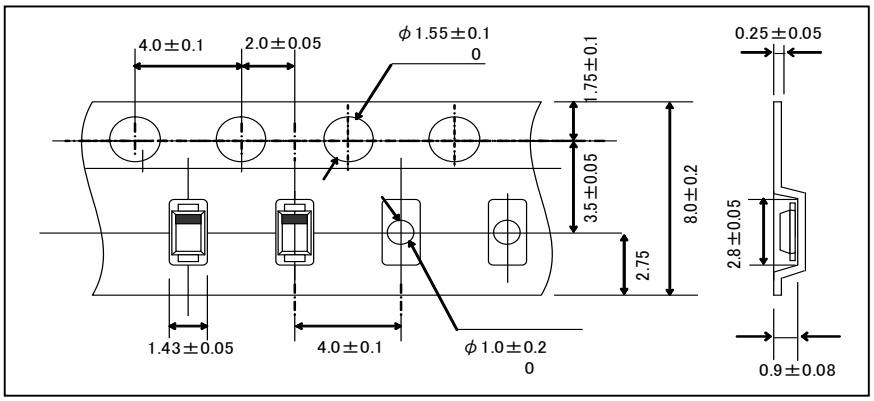
●Land size figure (Unit : mm)



●Structure



●Taping dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power dissipation	P	500	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	−55 to +150	°C
Operating resistance	Topr	−55 to +150	°C

●**Electical characteristics** (Ta=25°C)

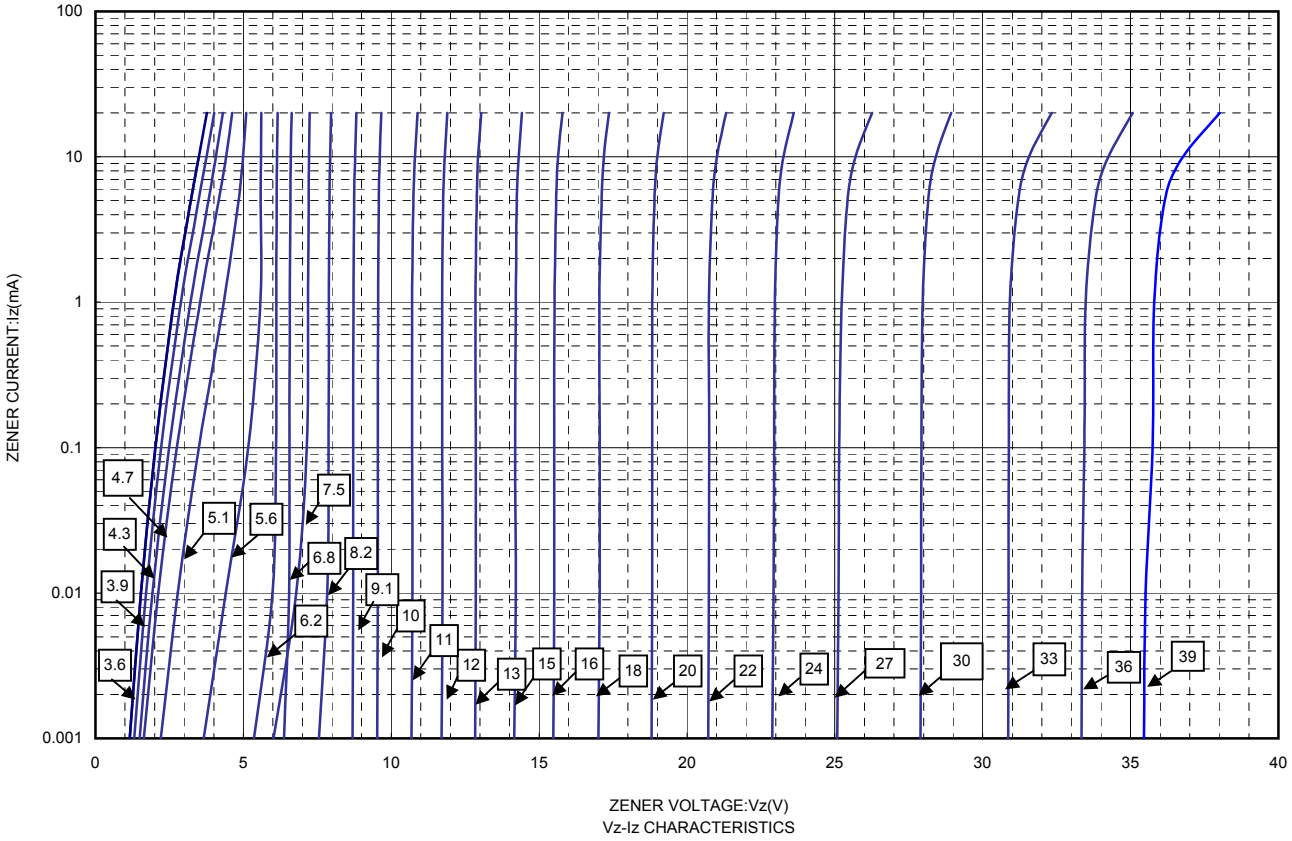
TYP.	Symbol						
	Zener Voltage : Vz(V)			Dynamic Impedance : $Z_Z(\Omega)$		Reverse Current : $I_R(\mu A)$	
	MIN.	MAX.	Iz(mA)	MAX.	Iz(mA)	MAX.	V_R(V)
TFZ 3.6B	3.600	3.845	20	60	20	10	1.0
TFZ 3.9B	3.890	4.160	20	50	20	5	1.0
TFZ 4.3B	4.170	4.430	20	40	20	5	1.0
TFZ 4.7B	4.550	4.800	20	25	20	5	1.0
TFZ 5.1B	4.940	5.200	20	20	20	5	1.5
TFZ 5.6B	5.450	5.730	20	13	20	5	2.5
TFZ 6.2B	5.960	6.270	20	10	20	5	3.0
TFZ 6.8B	6.490	6.830	20	8	20	2	3.5
TFZ 7.5B	7.070	7.450	20	8	20	0.5	4.0
TFZ 8.2B	7.780	8.190	20	8	20	0.5	5.0
TFZ 9.1B	8.570	9.010	20	8	20	0.5	6.0
TFZ 10B	9.410	9.900	20	8	20	0.2	7.0
TFZ 11B	10.500	11.050	10	10	10	0.2	8.0
TFZ 12B	11.440	12.030	10	12	10	0.2	9.0
TFZ 13B	12.550	13.210	10	14	10	0.2	10
TFZ 15B	13.890	14.620	10	16	10	0.2	11
TFZ 16B	15.250	16.040	10	18	10	0.2	12
TFZ 18B	16.820	17.700	10	23	10	0.2	13
TFZ 20B	18.630	19.590	10	28	10	0.2	15
TFZ 22B	20.640	21.710	5	30	5	0.2	17
TFZ 24B	22.610	23.770	5	35	5	0.2	19
TFZ 27B	24.970	26.260	5	45	5	0.2	21
TFZ 30B	27.700	29.130	5	55	5	0.2	23
TFZ 33B	30.320	31.880	5	65	5	0.2	25
TFZ 36B	32.790	34.490	5	75	5	0.2	27
TFZ 39B	35.360	37.190	5	85	5	0.2	30

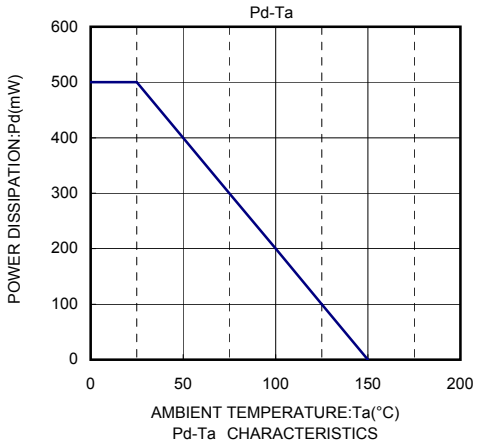
(1) The zener voltage(Vz) is measured 40ms after power is supplied.

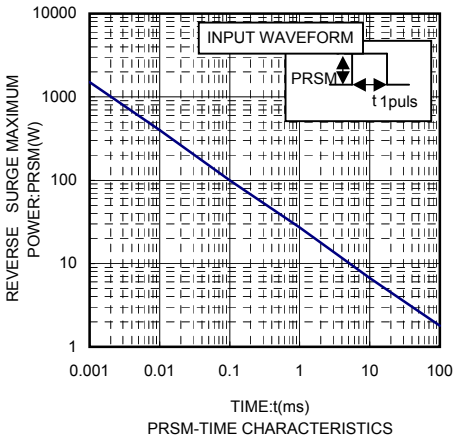
(2) The operating resistances(Zz,Zzk) are measured by superimposing a minute alternating current on the regulated current(Iz)

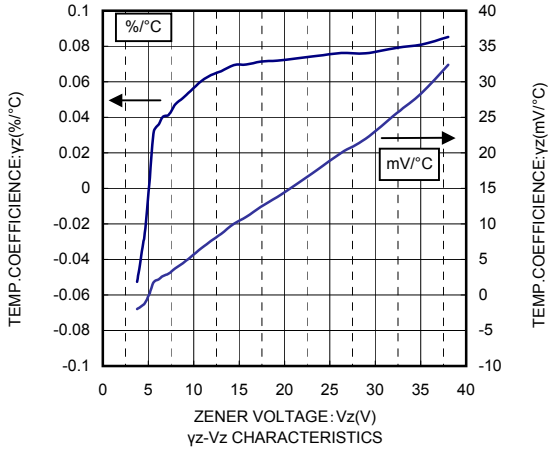
●**MARKING** (TYPE NO.)

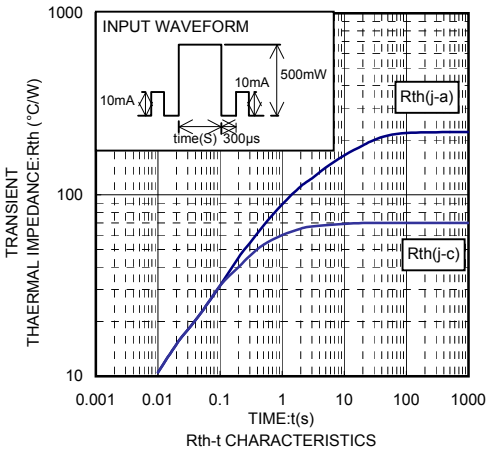
TYPE	TYPE NO.	TYPE	TYPE NO.
TFZ 3.6B	B 6	TFZ 16B	B M
TFZ 3.9B	B 7	TFZ 18B	B N
TFZ 4.3B	B 8	TFZ 20B	B O
TFZ 4.7B	B 9	TFZ 22B	B P
TFZ 5.1B	B A	TFZ 24B	B Q
TFZ 5.6B	B B	TFZ 27B	B R
TFZ 6.2B	B C	TFZ 30B	B S
TFZ 6.8B	B D	TFZ 33B	B T
TFZ 7.5B	B E	TFZ 36B	B U
TFZ 8.2B	B F	TFZ 39B	B V
TFZ 9.1B	B G		
TFZ 10B	B H		
TFZ 11B	B I		
TFZ 12B	B J		
TFZ 13B	B K		
TFZ 15B	B L		

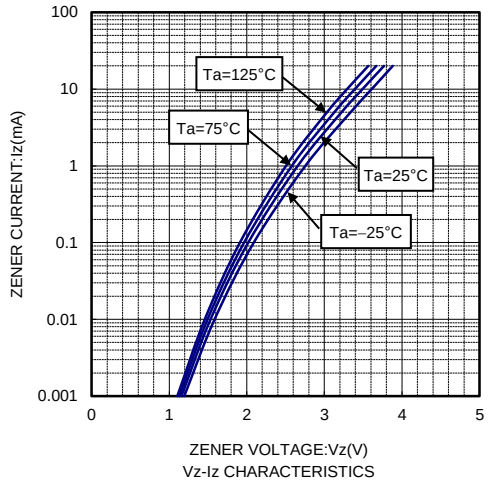




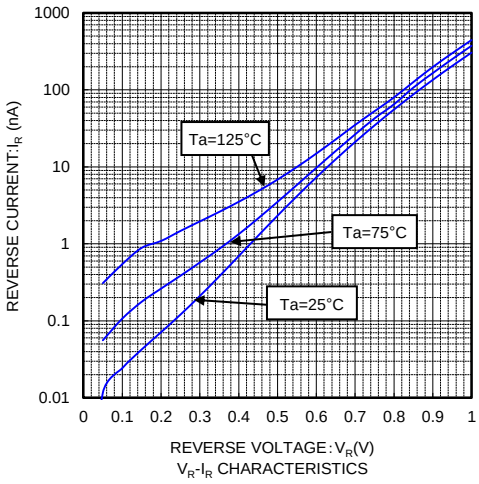




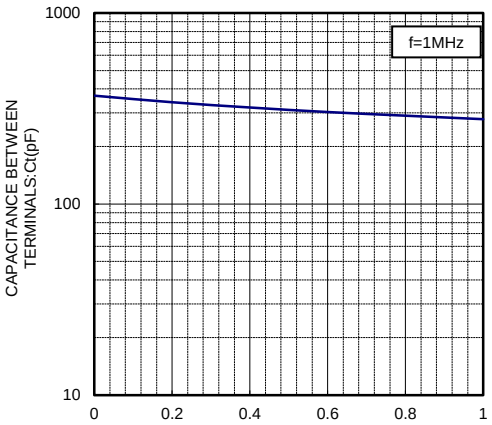




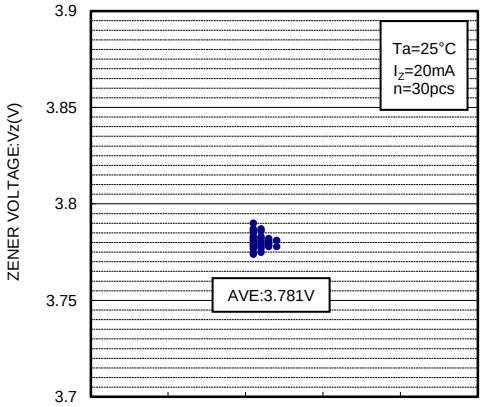
Vz-Iz CHARACTERISTICS



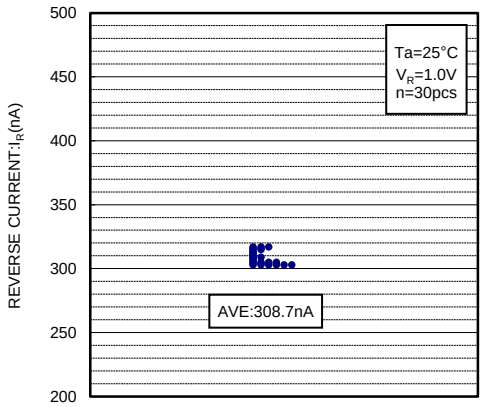
V_R-I_R CHARACTERISTICS



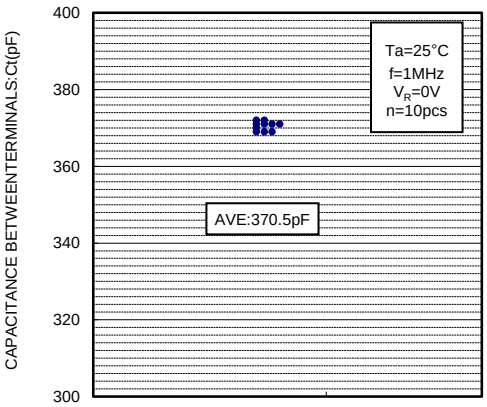
V_R-Ct CHARACTERISTICS



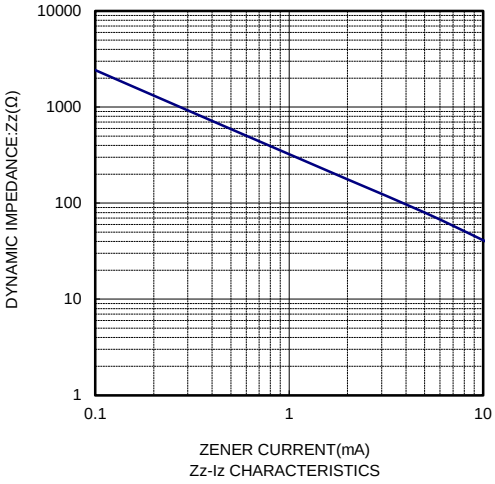
Vz DISRESION MAP



I_R DISRESION MAP



Ct DISRESION MAP



Zz-Iz CHARACTERISTICS

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