Zener diode

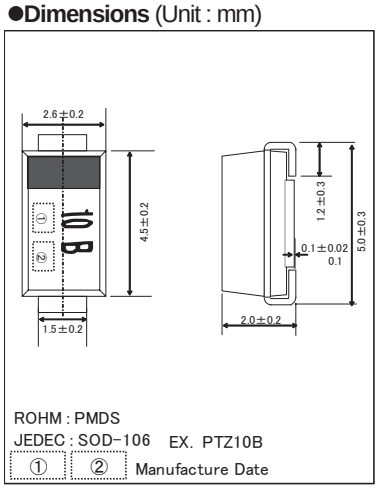
PTZ24B

●**Applications**
Voltage regulation

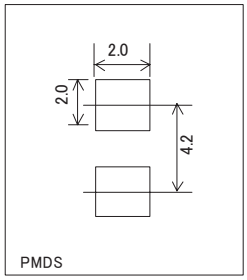
●**Features**
1) Small power mold type. (PMDS)
2) High ESD tolerance

●**Construction**
Silicon epitaxial planar

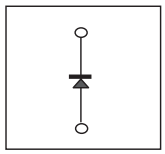
●**Dimensions** (Unit : mm)



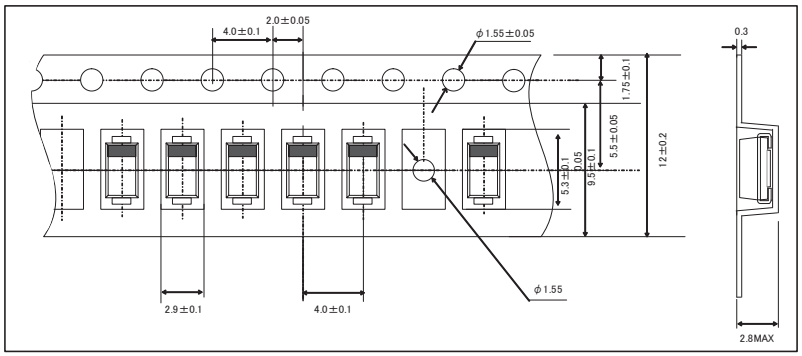
●**Land size figure** (Unit : mm)



●**Structure**



●**Taping dimensions** (Unit : mm)



●**Absolute maximum ratings** (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power dissipation	P	1000	mW
Junction temperature	Tj	150	℃
Storage temperature	Tstg	-55 to +150	℃

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

TYP.	Symbol											
	Zener voltage: Vz(V)				Operating resistance: Zz(Ω)		Reverse current: IR(μA)		Temperature coeficiency: *γz(mV/℃)		ESD breakdown voltage: ESD(kV)	
	MIN.	TYP.	MAX.	Iz(mA)	Max.	Iz(mA)	MAX.	VR(V)	TYP.	Iz(mA)	MIN.	Test Condition
PTZ 3.6B	3.600	3.813	4.000	40	15	40	60	1.0	-2.8	40	30kV	C=150pF R=330Ω forward and reverse: 10 times
PTZ 3.9B	3.900	4.136	4.400	40	15	40	40	1.0	-2.4	40		
PTZ 4.3B	4.300	4.572	4.800	40	15	40	20	1.0	-2.1	40		
PTZ 4.7B	4.700	4.924	5.200	40	10	40	20	1.0	-1.7	40		
PTZ 5.1B	5.100	5.368	5.700	40	8	40	20	1.0	-0.6	40		
PTZ 5.6B	5.600	5.856	6.300	40	8	40	20	1.5	1.4	40		
PTZ 6.2B	6.200	6.509	7.000	40	6	40	20	3.0	2.5	40		
PTZ 6.8B	6.800	7.280	7.700	40	6	40	20	3.5	3.2	40		
PTZ 7.5B	7.500	7.889	8.400	40	4	40	20	4.0	4.2	40		
PTZ 8.2B	8.200	8.655	9.300	40	4	40	20	5.0	5.0	40		
PTZ 9.1B	9.100	9.747	10.200	40	6	40	20	6.0	5.9	40		
PTZ 10B	10.000	10.310	11.200	40	6	40	10	7.0	6.9	40		
PTZ 11B	11.000	11.510	12.300	20	8	20	10	8.0	7.9	20		
PTZ 12B	12.000	12.500	13.500	20	8	20	10	9.0	8.7	20		
PTZ 13B	13.300	13.820	15.000	20	10	20	10	10.0	10.1	20		
PTZ 15B	14.700	15.350	16.500	20	10	20	10	11.0	11.8	20		
PTZ 16B	16.200	16.860	18.300	20	12	20	10	12.0	13.3	20		
PTZ 18B	18.000	19.000	20.300	20	12	20	10	13.0	15.0	20		
PTZ 20B	20.000	20.820	22.400	20	14	20	10	15.0	17.4	20		
PTZ 22B	22.000	23.850	24.500	10	14	10	10	17.0	19.4	10		
PTZ 24B	24.000	25.310	27.600	10	16	10	10	19.0	21.6	10		
PTZ 27B	27.000	28.700	30.800	10	16	10	10	21.0	24.6	10		
PTZ 30B	30.000	31.570	34.000	10	18	10	10	23.0	27.5	10		
PTZ 33B	33.000	34.950	37.000	10	18	10	10	25.0	30.8	10		
PTZ 36B	36.000	39.240	40.000	10	20	10	10	27.0	37.0	10		

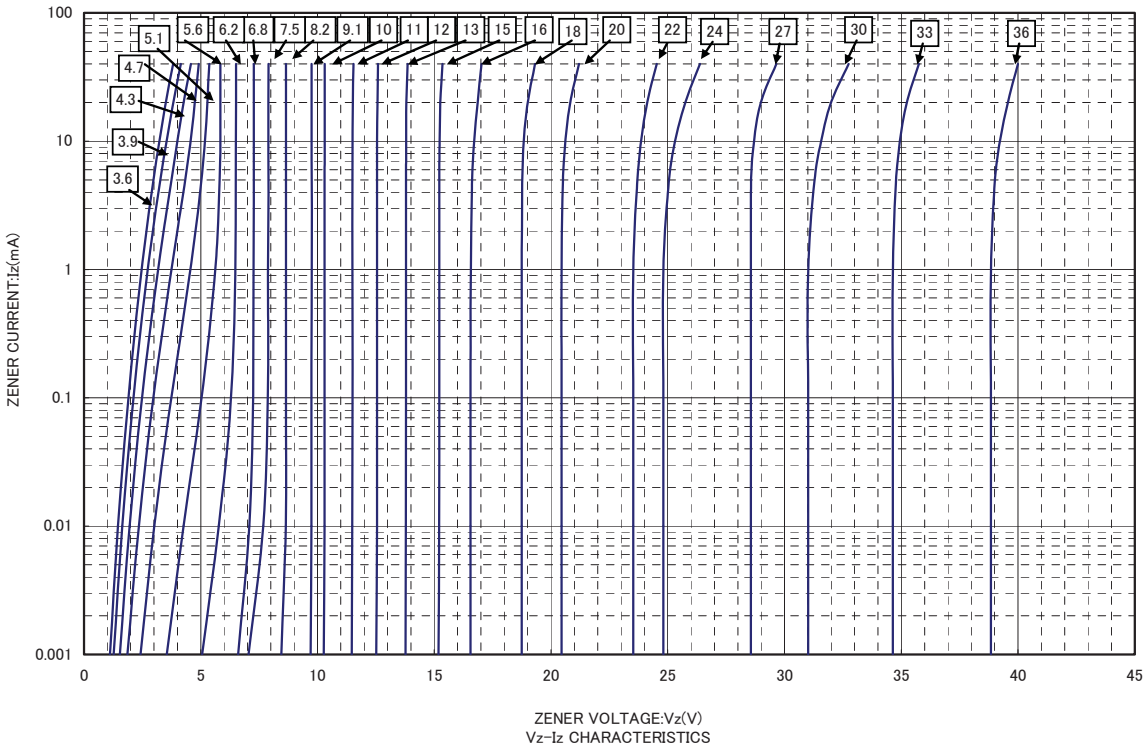
(1)The zener voltage(Vz) is measured 40ms after power is supplied.

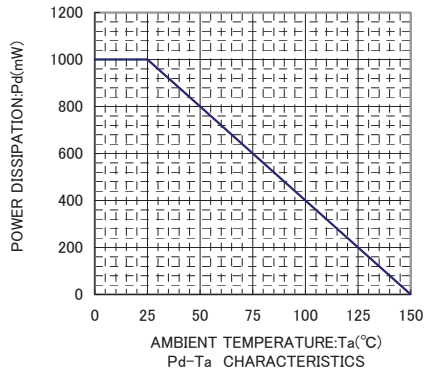
(2)The operating resistances(Zz,Zzk) are measured by superimposing a minute alternating current on the regulated current(Iz)

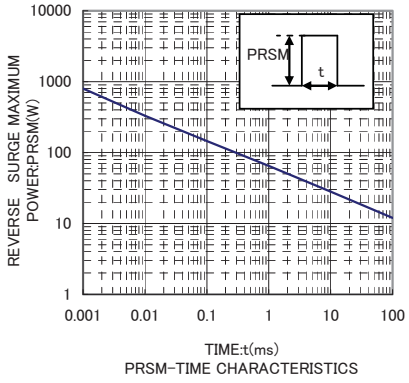
●**Marking** (TYPE NO.)

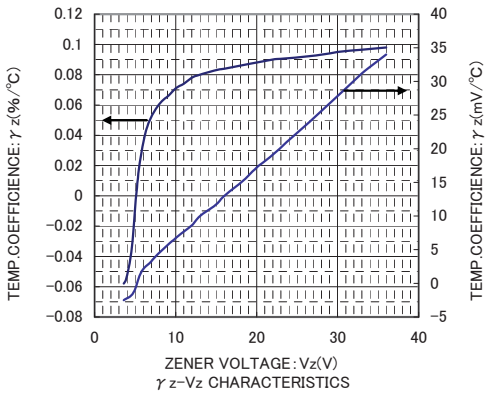
TYPE	TYPE NO.	TYPE	TYPE NO.	TYPE	TYPE NO.
PTZ 3.6B	3.6B	PTZ 8.2B	8.2B	PTZ 20B	20B
PTZ 3.9B	3.9B	PTZ 9.1B	9.1B	PTZ 22B	22B
PTZ 4.3B	4.3B	PTZ 10B	10B	PTZ 24B	24B
PTZ 4.7B	4.7B	PTZ 11B	11B	PTZ 27B	27B
PTZ 5.1B	5.1B	PTZ 12B	12B	PTZ 30B	30B
PTZ 5.6B	5.6B	PTZ 13B	13B	PTZ 33B	33B
PTZ 6.2B	6.2B	PTZ 15B	15B	PTZ 36B	36B
PTZ 6.8B	6.8B	PTZ 16B	16B		
PTZ 7.5B	7.5B	PTZ 18B	18B		

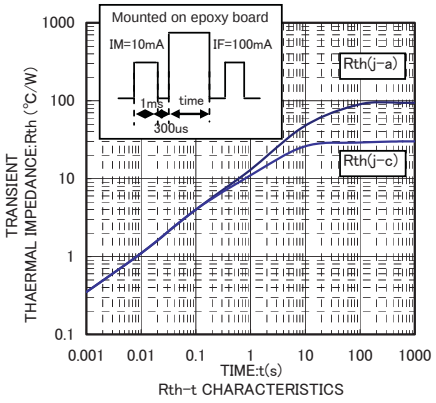
●**Electrical characteristic curves** (Ta=25°C)

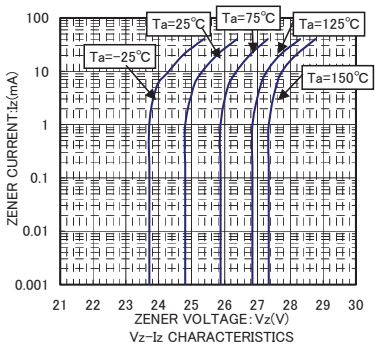




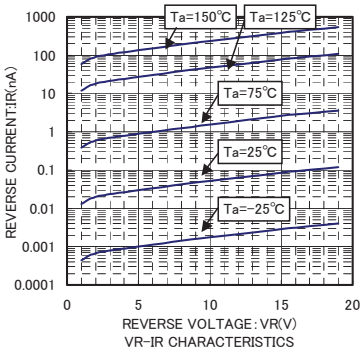




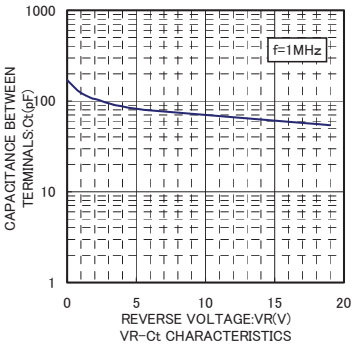




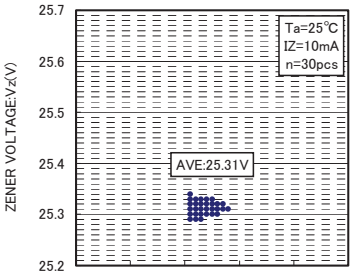
Vz-Iz CHARACTERISTICS



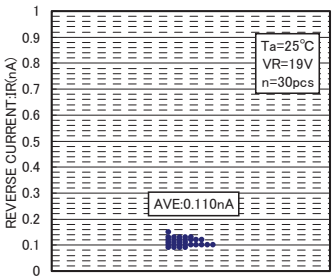
VR-IR CHARACTERISTICS



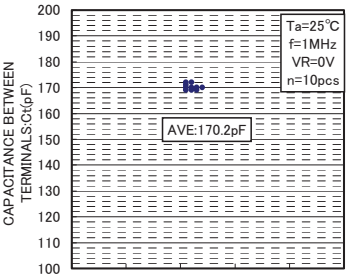
VR-Ct CHARACTERISTICS



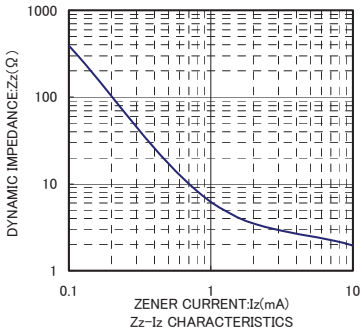
Vz DISPERSION MAP



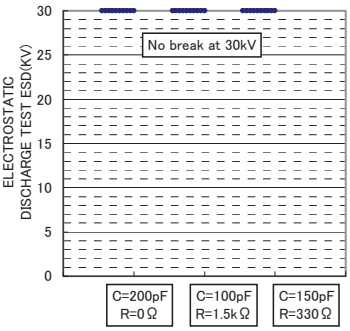
IR DISPERSION MAP



Ct DISPERSION MAP



Zz-Iz CHARACTERISTICS



ESD DISPERSION MAP

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TEL : +81-75-311-2121
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