

## Zener diode

## UDZS13B

## ●Applications

Constant voltage control

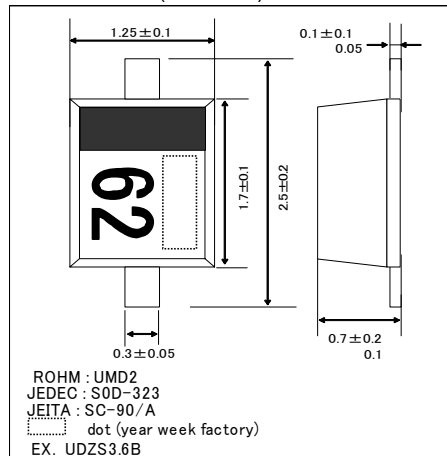
## ●Features

- 1) Compact, 2-pin mini-mold type for high-density mounting. (UMD2)
- 2) High reliability.
- 3) Can be mounted automatically, using chip mounter.

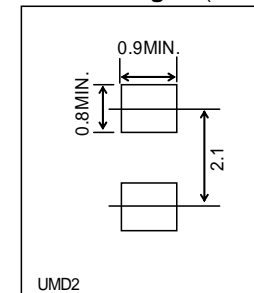
## ●Construction

Silicon epitaxial planar

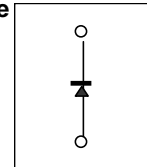
## ●Dimensions (Unit : mm)



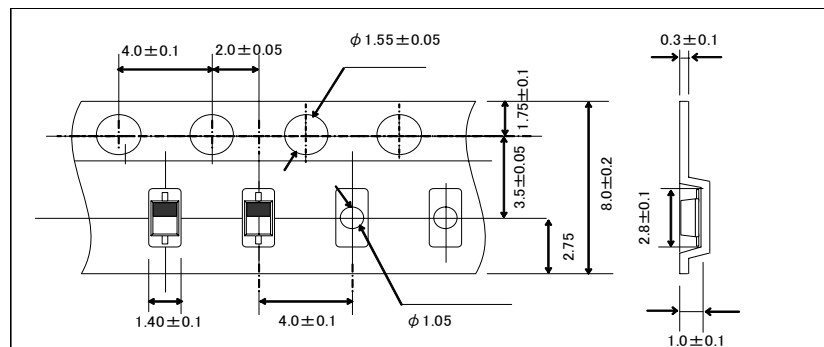
## ●Land size figure (Unit : mm)



## ●Structure



## ●Taping specifications (Unit : mm)



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

Parameter	Symbol	Limits	Unit
Power dissipation	P	200	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C
Operating temperature	T <sub>opr</sub>	-55 to +150	°C

## Diodes

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

TYP.	Symbol								
	Zener voltage : Vz(V)			Operating resistance : Zz( $\Omega$ )		Rising operating resistance : Zz( $\Omega$ )		Reverse current : IR( $\mu$ A)	
	MIN.	MAX.	Iz(mA)	MAX.	Iz(mA)	MAX.	Iz(mA)	MAX.	VR(V)
UDZS 3.6B	3.600	3.845	5.0	100	5.0	1000	1.0	10.0	1.0
UDZS 3.9B	3.890	4.160	5.0	100	5.0	1000	1.0	5.0	1.0
UDZS 4.3B	4.170	4.430	5.0	100	5.0	1000	1.0	5.0	1.0
UDZS 4.7B	4.550	4.750	5.0	100	5.0	800	0.5	2.0	1.0
UDZS 5.1B	4.980	5.200	5.0	80	5.0	500	0.5	2.0	1.5
UDZS 5.6B	5.490	5.730	5.0	60	5.0	200	0.5	1.0	2.5
UDZS 6.2B	6.060	6.330	5.0	60	5.0	100	0.5	1.0	3.0
UDZS 6.8B	6.650	6.930	5.0	40	5.0	60	0.5	0.5	3.5
UDZS 7.5B	7.280	7.600	5.0	30	5.0	60	0.5	0.5	4.0
UDZS 8.2B	8.020	8.360	5.0	30	5.0	60	0.5	0.5	5.0
UDZS 9.1B	8.850	9.230	5.0	30	5.0	60	0.5	0.5	6.0
UDZS 10B	9.770	10.210	5.0	30	5.0	60	0.5	0.1	7.0
UDZS 11B	10.760	11.220	5.0	30	5.0	60	0.5	0.1	8.0
UDZS 12B	11.740	12.240	5.0	30	5.0	80	0.5	0.1	9.0
UDZS 13B	12.910	13.490	5.0	37	5.0	80	0.5	0.1	10.0
UDZS 15B	14.340	14.980	5.0	42	5.0	80	0.5	0.1	11.0
UDZS 16B	15.850	16.510	5.0	50	5.0	80	0.5	0.1	12.0
UDZS 18B	17.560	18.350	5.0	65	5.0	80	0.5	0.1	13.0
UDZS 20B	19.520	20.390	5.0	85	5.0	100	0.5	0.1	15.0
UDZS 22B	21.540	22.470	5.0	100	5.0	100	0.5	0.1	17.0
UDZS 24B	23.720	24.780	5.0	120	5.0	120	0.5	0.1	19.0
UDZS 27B	26.190	27.530	5.0	150	5.0	150	0.5	0.1	21.0
UDZS 30B	29.190	30.690	5.0	200	5.0	200	0.5	0.1	23.0
UDZS 33B	32.150	33.790	5.0	250	5.0	250	0.5	0.1	25.0
UDZS 36B	35.070	36.870	5.0	300	5.0	300	0.5	0.1	27.0

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

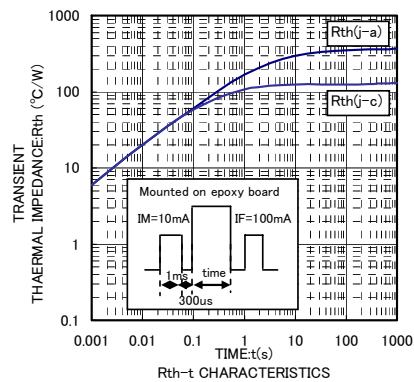
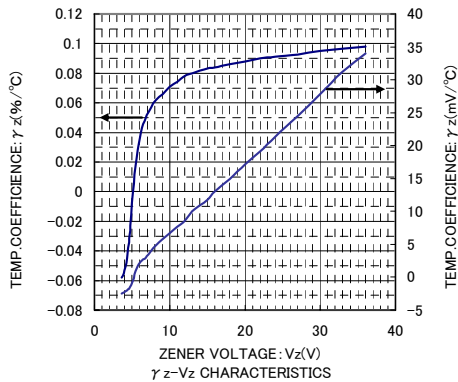
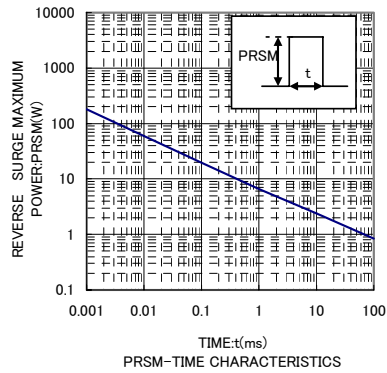
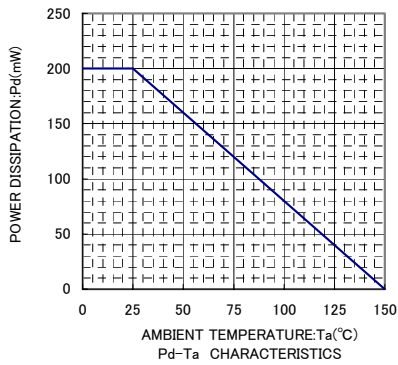
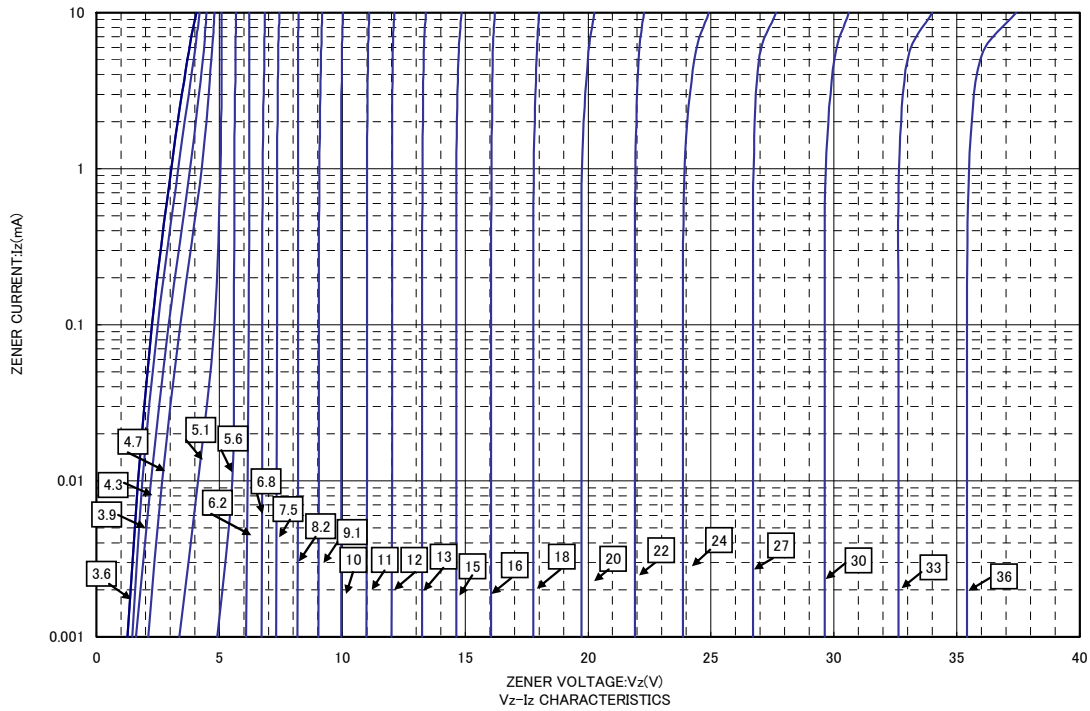
(2) The operating resistances(Zz,Zzk) are measured by superimposing a minute alternating current on the regulated current(Iz)

## ●Type No.

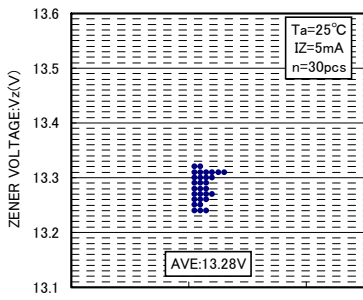
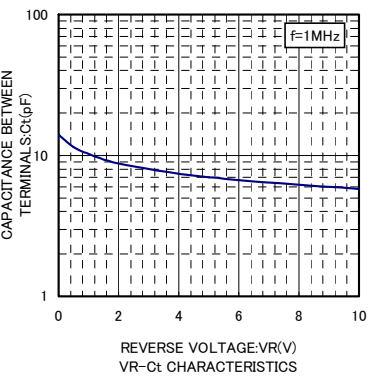
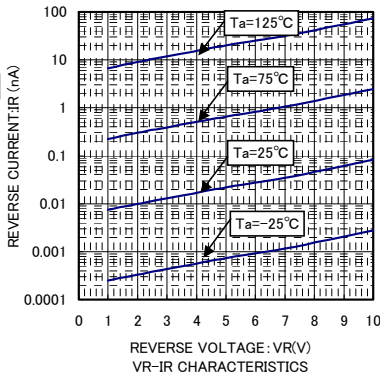
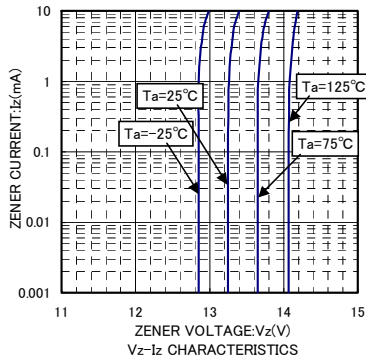
TYPE	TYPE NO.	TYPE	TYPE NO.
UDZS 3.6B	62	UDZS 12B	25
UDZS 3.9B	72	UDZS 13B	35
UDZS 4.3B	82	UDZS 15B	45
UDZS 4.7B	92	UDZS 16B	55
UDZS 5.1B	A2	UDZS 18B	65
UDZS 5.6B	G2	UDZS 20B	75
UDZS 6.2B	E2	UDZS 22B	85
UDZS 6.8B	F2	UDZS 24B	95
UDZS 7.5B	H2	UDZS 27B	A5
UDZS 8.2B	J2	UDZS 30B	C5
UDZS 9.1B	L2	UDZS 33B	E5
UDZS 10B	05	UDZS 36B	F5
UDZS 11B	15		

Diodes

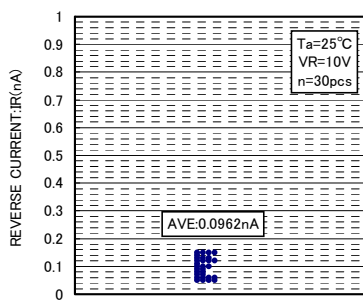
●Electrical characteristic curves (Ta=25°C)



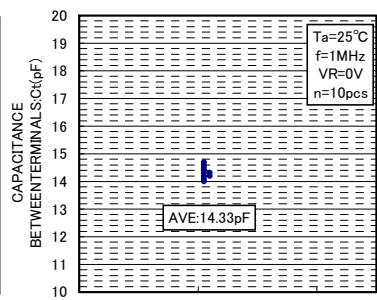
Diodes



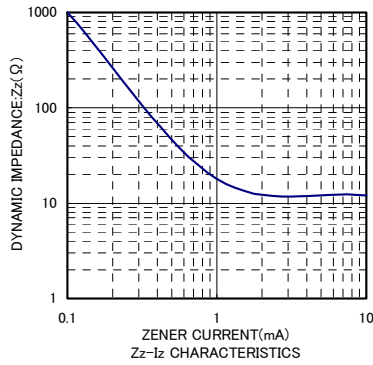
$V_z$  DISRESION MAP



IR DISRESION MAP



$C_t$  DISRESION MAP



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