

**COS**<sup>®</sup>

ZENER DIODE

SILICON EPITAXIAL PLANAR TYPE

BZX3V0~39V

### ■ Features:

- Very sharp reverse characteristic
- Low reverse current level
- Very high stability
- Low noise
- Available with tighter tolerances

### ■ Applications

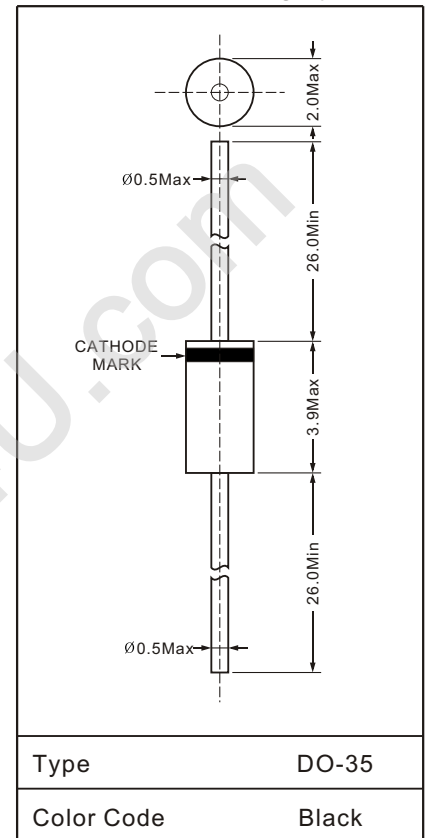
- Voltage stabilization

### ■ Absolute Maximum Rating

 $T_j = 25^\circ\text{C}$ 

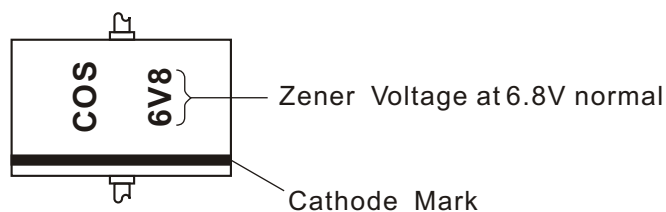
Parameter	Symbol	Value	Unit
Power dissipation	P	500	mW
Junction temperature	$T_j$	175	$^\circ\text{C}$
Storage temperature range	$T_{\text{Stg}}$	-65~175	$^\circ\text{C}$

Unit in: mm



### ■ Marking

- Example:

**DAIWA**TEL:(852)23413351 FAX:(852)27978275  
WEB SITE: <http://www.daiwahk.com>

# BZX2V0~39V

## ELECTRICAL CHARACTERISTICS(Ta=25°C)

Type	Zener Voltage at Iz=5mA Vz(v)		Dynamic resistance		Temp coeff of Zener volt at Iz=5mA AVz(%/°C)	Reverse Current at Ta=25°C IR(mA)		Admissible Zener current Iz(mA)
			at Iz=5mA f=1KHz Rzj( )	at Iz=5mA f=1KHz Rzj( )		MAX.	VR(v)=	
	MAX.	MIN.	MAX.	MAX.	Typ	MAX.		MAX.
BZX2V0	2.10	1.90	100	1000	-0.075	120	0.7	165
BZX2V2	2.31	2.09	100	1000	-0.075	120	1.0	155
BZX2V4	2.52	2.28	100	1000	-0.070	120	1.0	145
BZX2V7	2.83	2.57	110	1000	-0.070	100	1.0	135
BZX3V0	3.15	2.85	120	1000	-0.070	50	1.0	130
BZX3V3	3.46	3.14	120	1000	-0.065	20	1.0	120
BZX3V6	3.78	3.42	120	1100	-0.055	10	1.0	110
BZX3V9	4.09	3.71	120	1200	-0.035	5	1.0	100
BZX4V3	4.51	4.09	120	1200	-0.030	5	1.0	90
BZX4V7	4.93	4.47	100	1200	-0.020	5	1.0	85
BZX5V1	5.35	4.85	70	1200	±0.010	5	1.5	78
BZX5V6	5.88	5.32	40	900	0.035	5	2.5	70
BZX6V2	6.51	5.89	30	500	0.035	5	3.0	64
BZX6V8	7.14	6.46	25	150	0.040	2	3.5	58
BZX7V5	7.87	7.13	25	120	0.052	0.5	4.0	53
BZX8V2	8.61	7.79	20	120	0.055	0.5	5.0	48
BZX9V1	9.55	8.65	20	120	0.055	0.5	6.0	43
BZX10	10.50	9.50	20	120	0.060	0.2	7.0	40
BZX11	11.55	10.45	20	120	0.060	0.2	8.0	36
BZX12	12.60	11.40	25	110	0.065	0.2	9.0	33
BZX13	13.65	12.35	25	110	0.065	0.2	10.0	30
BZX15	15.75	14.25	25	110	0.070	0.2	11.0	26
BZX16	16.80	15.20	25	150	0.070	0.2	12.0	25
BZX18	18.90	17.10	30	150	0.075	0.2	13.0	22
BZX20	21.00	19.00	30	200	0.080	0.2	15.0	20
BZX22	23.10	20.90	30	200	0.080	0.2	17.0	18
BZX24	25.20	22.80	35	200	0.085	0.2	19.0	16
BZX27	28.35	25.65	45	250	0.090	0.2	21.0	14
BZX30	31.50	28.50	55	250	0.092	0.2	23.0	13
BZX33	34.65	31.35	65	250	0.092	0.2	25.0	12
BZX36	37.80	34.20	75	250	0.095	0.2	27.0	11
BZX39	40.90	37.05	85	250	0.095	0.2	30.0	10

**Note:**

1. Zener Voltage is measured 40ms after electricity charging.
2. Data valid provided that leads are kept at ambient temperature at a distance of 8mm from case.

VF=1V MAX (at IF=100mA)

3. Special Voltage accuracy will be provided upon request at different pricing.

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# COS Series

## ■ Main Characteristic

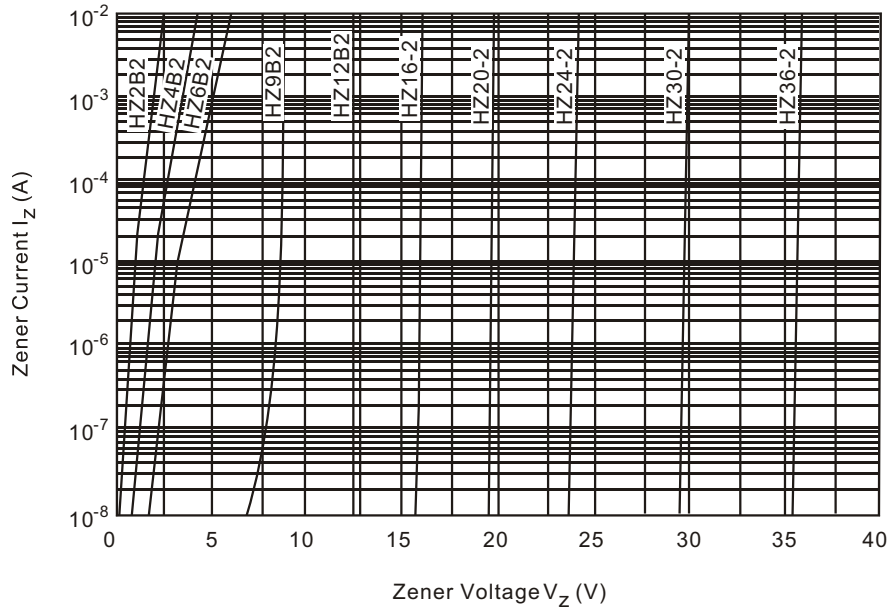


Fig.1 Zener current Vs. Zener voltage

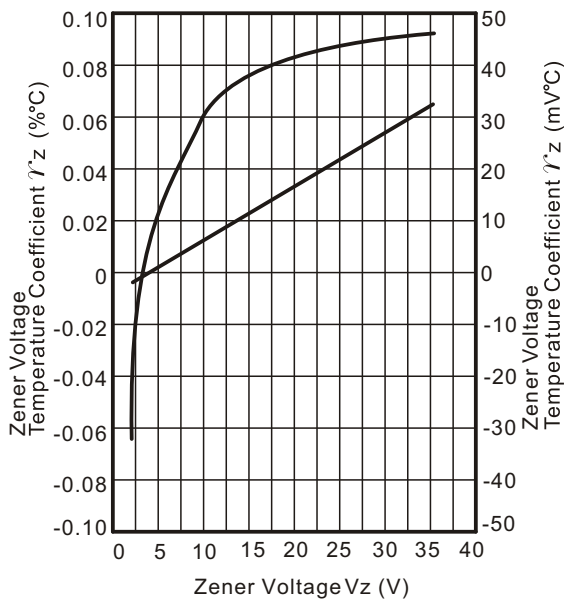


Fig.2 Temperature Coefficient Vs. Zener voltage

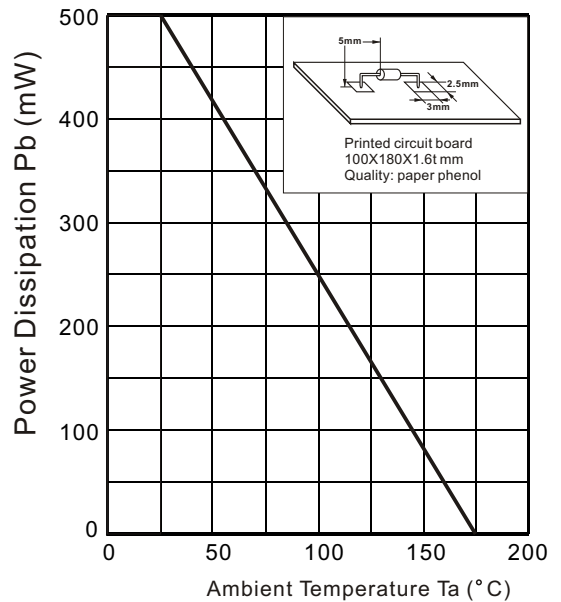


Fig.3 Power Dissipation Vs. Ambient Temperature

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