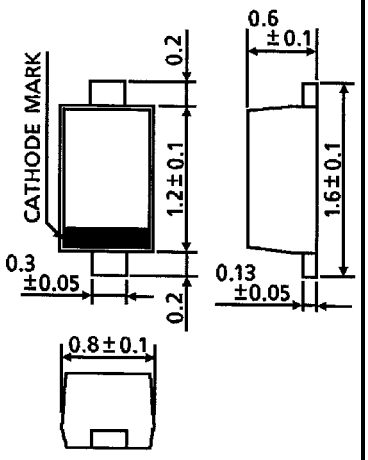
TOSHIBA Diode Silicon Epitaxial Planar Type

015AZ2.0~015AZ12

Constant Voltage Regulation Applications

- Small package
- Nominal voltage tolerance about ±2.5% (2.0V~12V)

Unit: mm



ESC	
JEDEC	—
JEITA	—
TOSHIBA	1-1G1A

Weight: 1.4 mg

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Power dissipation	P*	150	mW
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	−55~125	°C

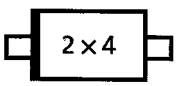
* Mounted on a glass epoxy circuit board of 20 × 20mm, Pad dimension of 4 × 4mm.

Electrical Characteristics

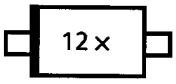
(See Page 2~3)

Marking

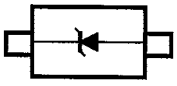
Example 1: 015AZ12-×



Example 2: 015AZ12-×



Pin Assignment (top view)



Electrical Characteristics (Ta = 25°C)

Type No.		Zener Voltage			Dynamic Impedance		Knee Dynamic Impedance		Reverse Current	
		* V_Z (V)		I_Z (mA)	Z_Z(Ω)	I_Z (mA)	Z_{ZK}(Ω)	I_Z (mA)	I_R (μA)	V_R (V)
		Min	Max		Max		Max		Max	
015AZ2.0 **	X	1.85	2.05	5	100	5	1000	0.5	120	0.5
	Z	1.95	2.15							
015AZ2.2 **	X	2.05	2.26	5	100	5	1000	0.5	120	1.0
	Z	2.16	2.38							
015AZ2.4	X	2.28	2.50	5	100	5	1000	0.5	120	1.0
	Z	2.40	2.60							
015AZ2.7	X	2.50	2.75	5	110	5	1000	0.5	120	1.0
	Z	2.65	2.90							
015AZ3.0	X	2.80	3.05	5	120	5	1000	0.5	50	1.0
	Z	2.95	3.20							
015AZ3.3	X	3.10	3.35	5	130	5	1000	0.5	20	1.0
	Z	3.25	3.50							
015AZ3.6	X	3.40	3.65	5	130	5	1000	0.5	10	1.0
	Z	3.55	3.80							
015AZ3.9	X	3.70	3.97	5	130	5	1000	0.5	10	1.0
	Z	3.87	4.10							
015AZ4.3	X	4.00	4.23	5	130	5	1000	0.5	5	1.0
	Y	4.13	4.35							
	Z	4.25	4.50							
015AZ4.7	X	4.40	4.63	5	120	5	1000	0.5	5	1.0
	Y	4.53	4.76							
	Z	4.66	4.90							
015AZ5.1	X	4.80	5.07	5	70	5	1000	0.5	1	1.5
	Y	4.97	5.24							
	Z	5.14	5.40							
015AZ5.6	X	5.30	5.63	5	40	5	900	0.5	1	2.5
	Y	5.43	5.81							
	Z	5.61	6.00							
015AZ6.2	X	5.80	6.20	5	30	5	500	0.5	1	3.0
	Y	6.00	6.39							
	Z	6.19	6.60							
015AZ6.8	X	6.40	6.80	5	25	5	150	0.5	0.5	5.0
	Y	6.60	7.02							
	Z	6.82	7.20							

* : Test time: t = 30ms

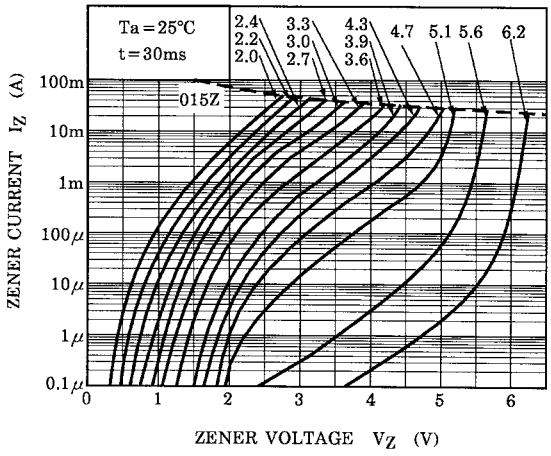
** : Product by order.

Electrical Characteristics (Ta = 25ºC)

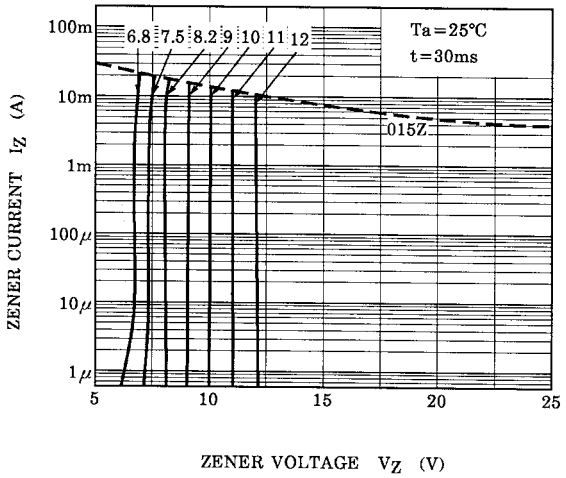
Type No.		Zener Voltage			Dynamic Impedance		Knee Dynamic Impedance		Reverse Current	
		* V_Z (V)		I_Z (mA)	Z_Z(Ω)	I_Z (mA)	Z_{ZK} (Ω)	I_Z (mA)	I_R (μA)	V_R (V)
		Min	Max		Max		Max		Max	
015AZ7.5	X	7.00	7.43	5	23	5	120	0.5	0.5	6.0
	Y	7.23	7.66							
	Z	7.46	7.90							
015AZ8.2	X	7.70	8.16	5	20	5	120	0.5	0.5	6.5
	Y	7.96	8.43							
	Z	8.23	8.70							
015AZ9.1	X	8.50	9.00	5	18	5	120	0.5	0.5	7.0
	Y	8.80	9.30							
	Z	9.10	9.60							
015AZ10	X	9.40	9.93	5	15	5	120	0.5	0.5	8.0
	Y	9.73	10.26							
	Z	10.06	10.60							
015AZ11	X	10.40	10.98	5	15	5	120	0.5	0.5	8.5
	Y	10.73	11.26							
	Z	11.06	11.60							
015AZ12	X	11.40	11.93	5	15	5	110	0.5	0.5	9.0
	Y	11.73	12.26							
	Z	12.06	12.60							

* : Test time: t = 30ms

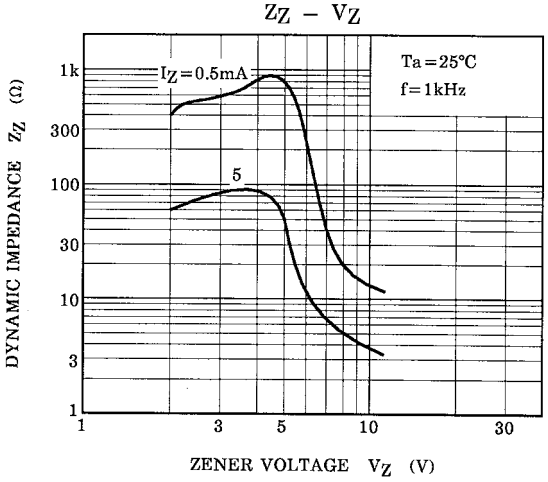
$I_Z - V_Z$ (V_Z : 2.0~6.2)



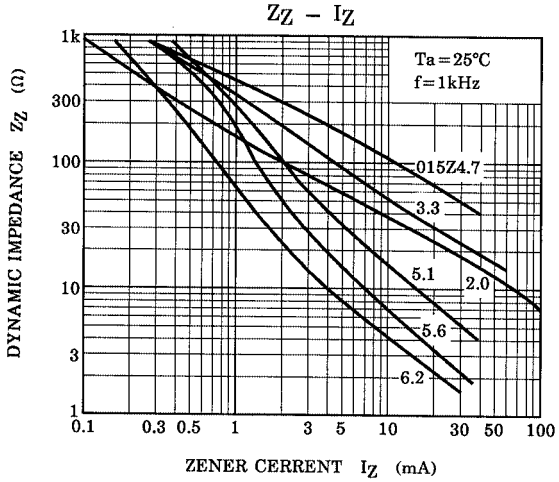
$I_Z - V_Z$ (V_Z : 6.8~12)



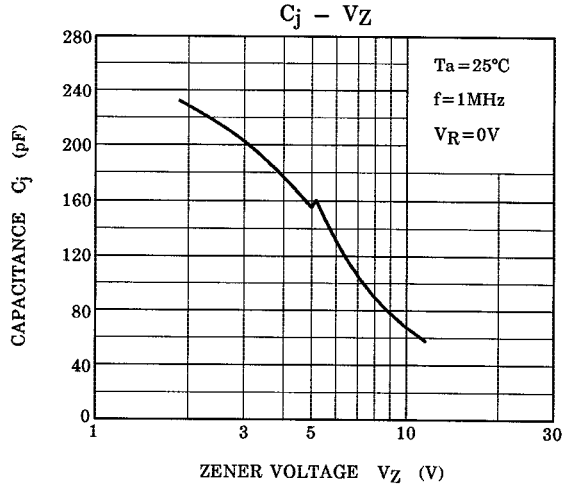
$Z_Z - V_Z$



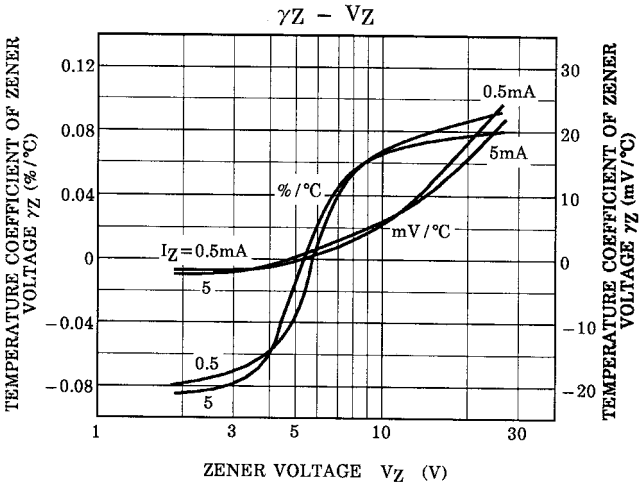
$Z_Z - I_Z$

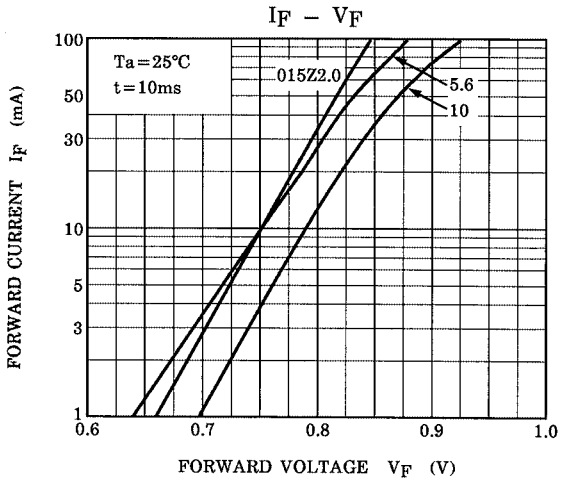


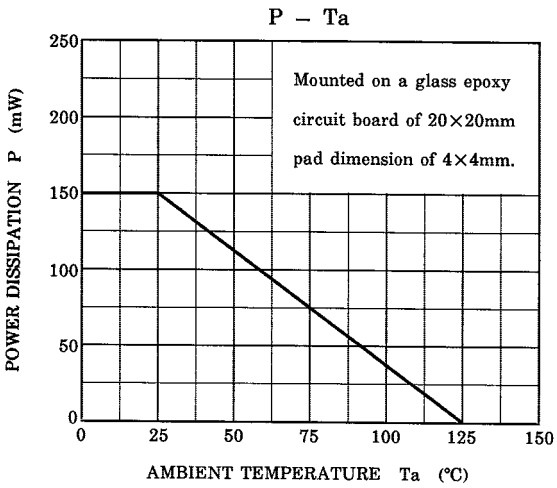
$C_j - V_Z$



$\gamma Z - V_Z$




$I_F - V_F$
Ta=25°C
t=10ms
015Z2.0
5.6
10
FORWARD CURRENT I_F (mA)
100
50
30
10
5
3
1
0.6
0.7
0.8
0.9
1.0
FORWARD VOLTAGE V_F (V)


P – Ta
Mounted on a glass epoxy
circuit board of 20×20mm
pad dimension of 4×4mm.
POWER DISSIPATION P (mW)
250
200
150
100
50
0
0
25
50
75
100
125
150
AMBIENT TEMPERATURE Ta (°C)

RESTRICTIONS ON PRODUCT USE

000707EAA

- TOSHIBA is continually working to improve the quality and reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to comply with the standards of safety in making a safe design for the entire system, and to avoid situations in which a malfunction or failure of such TOSHIBA products could cause loss of human life, bodily injury or damage to property.
  In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent TOSHIBA products specifications. Also, please keep in mind the precautions and conditions set forth in the “Handling Guide for Semiconductor Devices,” or “TOSHIBA Semiconductor Reliability Handbook” etc..
- The TOSHIBA products listed in this document are intended for usage in general electronics applications (computer, personal equipment, office equipment, measuring equipment, industrial robotics, domestic appliances, etc.). These TOSHIBA products are neither intended nor warranted for usage in equipment that requires extraordinarily high quality and/or reliability or a malfunction or failure of which may cause loss of human life or bodily injury (“Unintended Usage”). Unintended Usage include atomic energy control instruments, airplane or spaceship instruments, transportation instruments, traffic signal instruments, combustion control instruments, medical instruments, all types of safety devices, etc.. Unintended Usage of TOSHIBA products listed in this document shall be made at the customer’s own risk.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

Стандарт Электрон Связь

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

Наши контакты:

Телефон: +7 812 627 14 35

Электронная почта: sales@st-electron.ru

Адрес: 198099, Санкт-Петербург, Промышленная ул, дом № 19, литера Н, помещение 100-Н Офис 331