5.0 W Glass Passivated Zener Diodes

DO-201AE

Voltage	Power Dissipation
8.2 to 200 V	5.0 W

HYPERECTIFIER®

FEATURE

- Glass passivated chip junction
- Hiperectifier structure for high reliability
- Cavity-free glass-passivated junction
- Low leakage current
- High surge current and zener capability
- Low differential resistance
- Low forward voltage drop
- Solder dip 260 ºC, 10s
- AEC-Q101 qualified
- Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC

Pb e3 **RoHS** COMPLIANT

MECHANICAL DATA

- **Case:** DO-201AE. Epoxy meets UL 94V-0 flammability rating.
- **Polarity:** Color band denotes cathode end.
- **Terminals:** Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test.

TYPICAL APPLICATIONS

Used for basic regulation functions in most electronic applications, Zener diodes offer a cheaper alternative to IC solutions.

Maximum Ratings and Electrical Characteristics at 25 °C

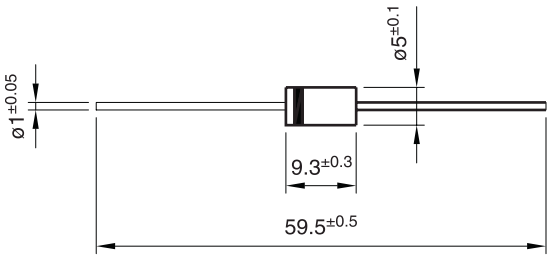
SYMBOL	TYPE NUMBER	VALUE	UNIT
P_{tot}	Power dissipation at Tamb = 75 ºC	5.0	W
P_{ZSM}	Non repetitive peak zener dissipation (t = 10 ms)	200	W
T_j	Operatin Temperature Range	-65 to +175	ºC
T_{stg}	Storage Temperature Range	-65 to +175	ºC
V_F	Max. forward voltage drop at I_F = 3.0 A	1.2	V
R_{thj-a}	Max. thermal resistance at 10 mm. Lead length	20	ºC/W

5.0 W Glass Passivated Zener Diodes

Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
BZV58C10 TR	TR	14" diameter tape and reel	1,500	0.968
BZV58C10 AMP	AMP	AMMO BOX	1,500	0.968

Package Outline Dimensions: (mm) DO-201AE



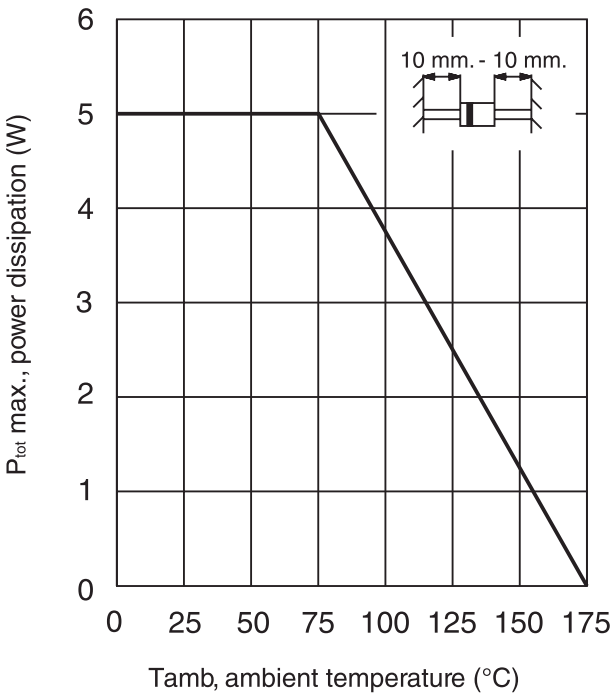
5.0 W Glass Passivated Zener Diodes

Type	Nominal Zener Voltage V_Z at I_{ZT}	Test Current I_{ZT}	Maximum Zener Impedance Z_{ZT} at I_{ZT}	Typical Temperature Coefficient	Maximum Reverse Leakage Current I_R	at V_R	Maximum Regulator Current I_{ZM}
	(V)	(mA)	(Ω)	(% / °C)	(µA)	(V)	(mA)
BZV58C8V2	7.7 - 8.7	150	1.5	+ 0.048	10	3	570
BZV58C9V1	8.5 - 9.6	150	2	+ 0.051	10	6.6	520
BZV58C10	9.4 - 10.6	125	2	+ 0.055	10	7.6	470
BZV58C11	10.4 - 11.6	125	2.5	+ 0.060	5	8.3	430
BZV58C12	11.4 - 12.7	100	2.5	+ 0.065	2	9.1	390
BZV58C13	12.4 - 14.1	100	2.5	+ 0.065	1	9.9	350
BZV58C15	13.8 - 15.6	75	2.5	+ 0.070	1	11.4	320
BZV58C16	15.3 - 17.1	75	2.5	+ 0.070	1	12.2	290
BZV58C18	16.8 - 19.1	65	2.5	+ 0.075	1	13.7	260
BZV58C20	18.8 - 21.2	65	3	+ 0.075	1	15.2	235
BZV58C22	20.8 - 23.3	50	3.5	+ 0.080	1	16.7	215
BZV58C24	22.8 -25.6	50	3.5	+ 0.080	1	18.2	195
BZV58C27	25.1 - 28.9	50	5	+ 0.085	1	20.5	170
BZV58C30	28 - 32	40	8	+ 0.085	1	22.8	155
BZV58C33	31 - 35	40	10	+ 0.085	1	25	140
BZV58C36	34 - 38	30	11	+ 0.085	1	27.4	130
BZV58C39	37 - 41	30	14	+ 0.090	1	29.6	120
BZV58C43	40 - 46	30	20	+ 0.090	1	32.7	110
BZV58C47	44 - 50	25	25	+ 0.090	1	35.7	100
BZV58C51	48 - 54	25	27	+ 0.090	1	38.8	92
BZV58C56	52 - 60	20	35	+ 0.090	1	42.5	83
BZV58C62	58 - 66	20	42	+ 0.090	1	47.1	75
BZV58C68	64 - 72	20	44	+ 0.090	1	51.7	69
BZV58C75	70 - 79	20	45	+ 0.090	1	57	63
BZV58C82	77 - 87	15	65	+ 0.090	1	62.4	57
BZV58C91	85 - 96	15	75	+ 0.090	1	69.2	52
BZV58C100	94 - 106	12	90	+ 0.090	1	76	47
BZV58C110	104 - 116	12	125	+ 0.095	1	83.5	43
BZV58C120	114 - 127	10	170	+ 0.095	1	91.2	39
BZV58C130	124 - 141	10	190	+ 0.095	1	98.8	35
BZV58C150	138 - 156	8	330	+ 0.095	1	114	32
BZV58C160	153 - 171	8	350	+ 0.095	1	122	29
BZV58C180	168 - 191	5	430	+ 0.095	1	137	26
BZV58C200	188 - 212	5	480	+ 0.100	1	152	23

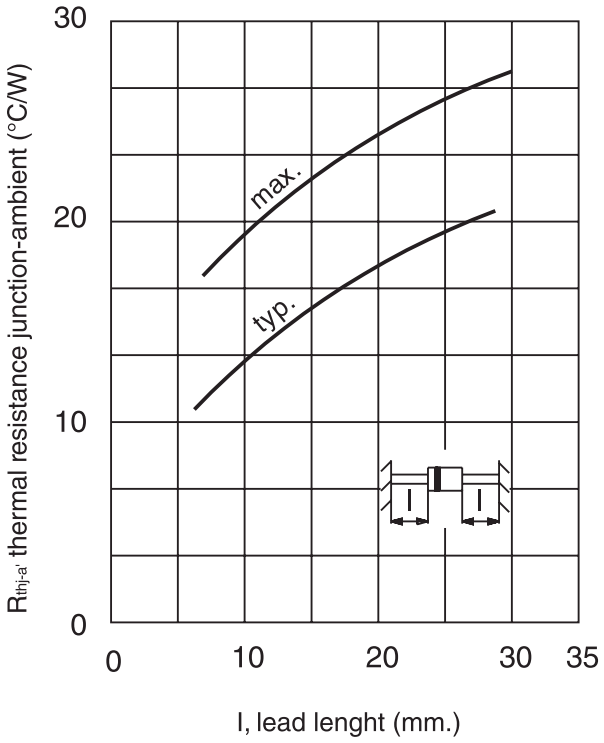
5.0 W Glass Passivated Zener Diodes

Rating and Characteristics (Ta 25 ºC unless otherwise noted)

MAXIMUM CONTINUOUS POWER DISSIPATION



THERMAL RESISTANCE



5.0 W Glass Passivated Zener Diodes

Revision History

DATE	REVISION	DESCRIPTION OF CHANGES
15-May-2016	0	Original Data Sheet
16-Feb-2018	1	Remove Tolerance Series ± 5%

Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

Fagor Electrónica, S. Coop., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Fagor”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Fagor makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Fagor disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Fagor’s knowledge of typical requirements that are often placed on Fagor products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the cutomer’s responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer’s technical experts. Product specifications do not expand or otherwise modify Fagor’s terms and conditions or purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing. Fagor products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Fagor product could result in personal injury or death. Customers using or selling Fagor products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold Fagor and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attomeys fees, even if such claim alleges that Fagor or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized Fagor personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Fagor. Products names and markings noted herein may be trademarks of their respective owners.