




5.0 W Glass Passivated Zener Diodes

<p>DO-201AE</p> 	<p>Voltage 8.2 to 200 V</p>	<p>Power Dissipation 5.0 W</p>	
			
	<p>FEATURE</p> <ul style="list-style-type: none"> • 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 °C, 10s • AEC-Q101 qualified • Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC 		
	<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • 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. 		
<p>TYPICAL APPLICATIONS</p> <p>Used for basic regulation functions in most electronic applications, Zener diodes offer a cheaper alternative to IC solutions.</p>			

Maximum Ratings and Electrical Characteristics at 25 °C

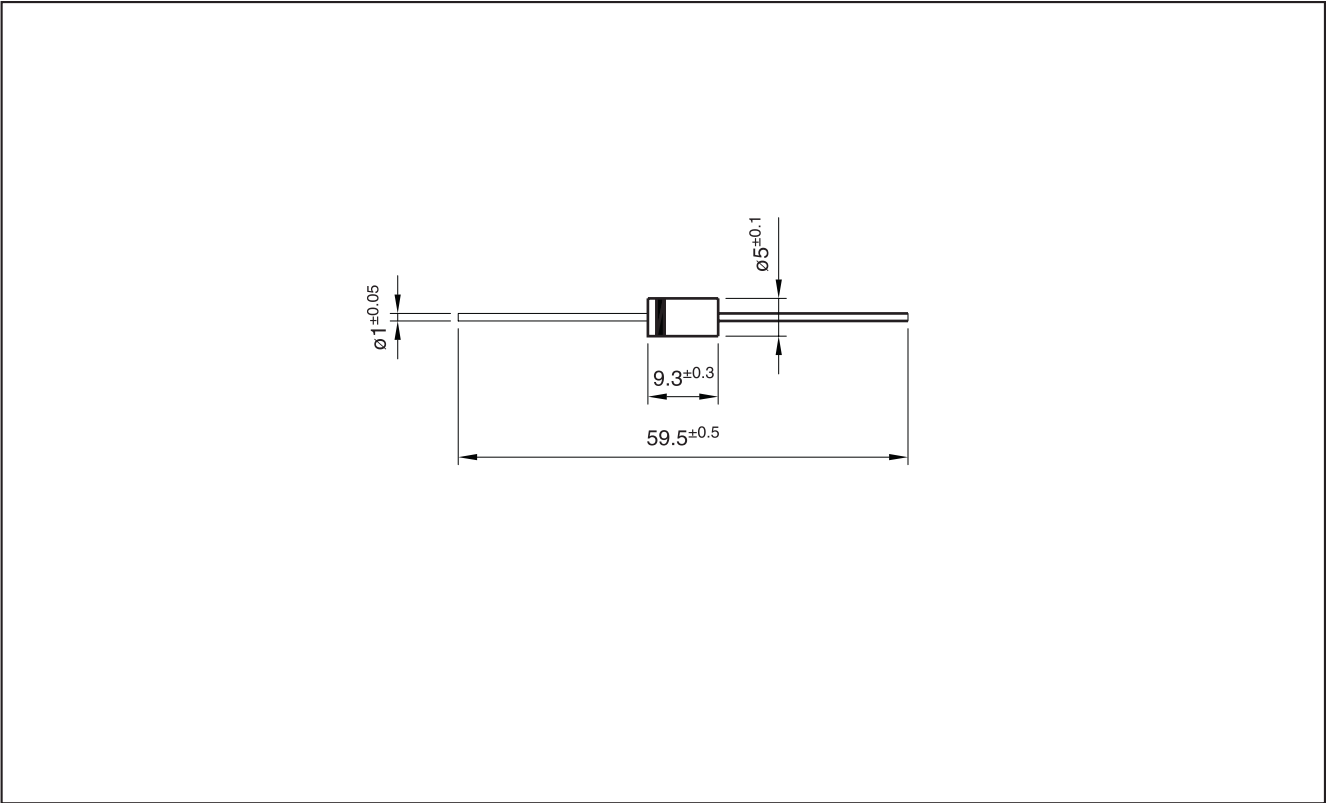
SYMBOL	TYPE NUMBER	VALUE	UNIT
P_{tot}	Power dissipation at $T_{amb} = 75\text{ °C}$	5.0	W
P_{ZSM}	Non repetitive peak zener dissipation ($t = 10\text{ ms}$)	200	W
T_j	Operatin Temperature Range	-65 to +175	°C
T_{stg}	Storage Temperature Range	-65 to +175	°C
V_F	Max. forward voltage drop at $I_F = 3.0\text{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

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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



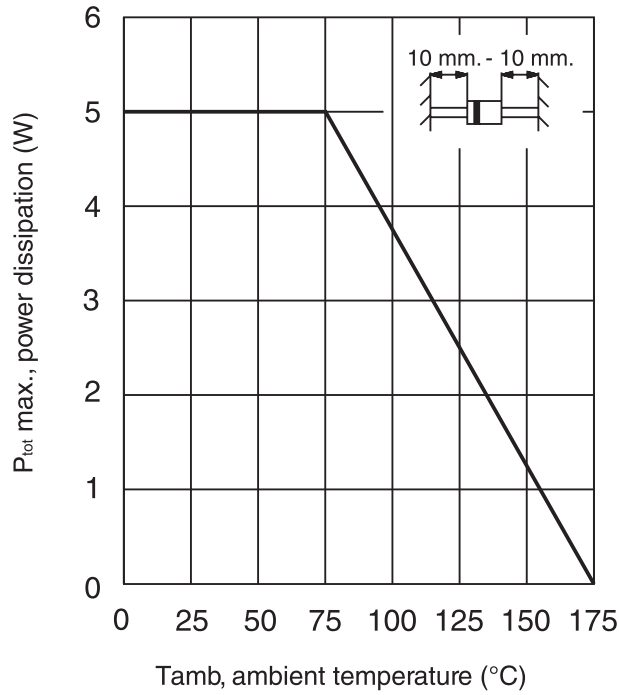
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Type	Nominal Zener Voltage V_Z at I_{ZT}	Test Current I_{ZT}	Maximum Zener Impedance Z_{ZT} at I_{ZT}	Typical Temperature Coefficient	Maximum Reverse Leakage Current at V_R		Maximum Regulator Current I_{ZM}
	(V)	(mA)	(Ω)	(% / $^{\circ}C$)	(μA)	(V)	(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

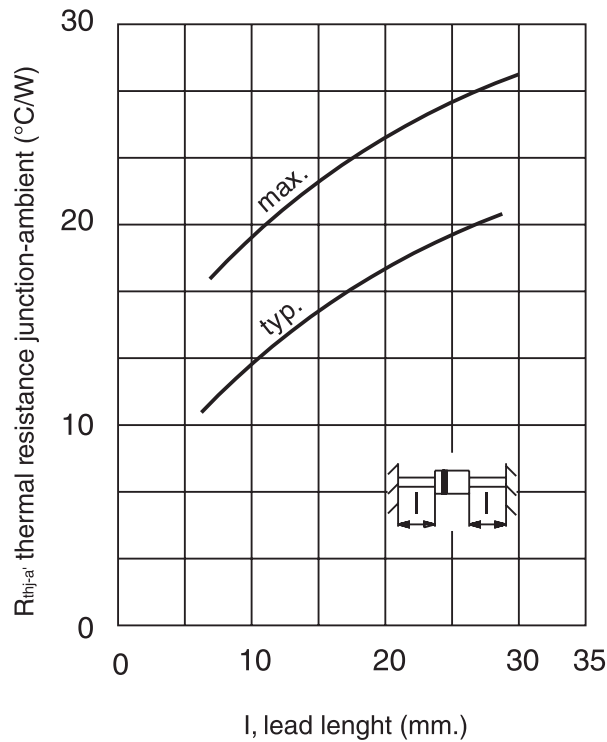
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Rating and Characteristics (Ta 25 °C unless otherwise noted)

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 $\pm 5\%$

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