



# DATA SHEET

## 1N5348B SERIES

### GLASS PASSIVATED JUNCTION SILICON ZENER DIODES

**VOLTAGE** 11 to 39 Volts    **CURRENT** 5.0 Watts

#### FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Typical  $I_D$  less than  $1.0\mu A$  above 13V
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Both normal and Pb free product are available :
  - Normal : 80~95% Sn, 5~20% Pb
  - Pb free: 98.5% Sn above

#### MECHANICAL DATA

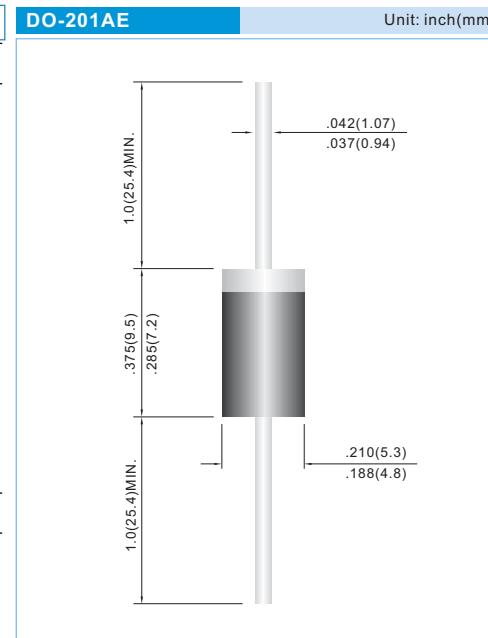
Case: JEDEC DO-201AE molded plastic

Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denoted cathode except Bipolar

Mounting Position: Any

Weight: 0.045 ounce, 1.2 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
DC Power Dissipation on TL=75°C ,Measure at Zero Lead Length Derate above 50°C ( NOTE 1)	$P_D$	5.0 40	Watts mW / °C
Operating Junction and Storage Temperature Range	$T_J$ , $T_{STG}$	-55 to +150	°C

#### NOTE:

1. Mounted on 8.0mm<sup>2</sup> copper pads to each terminal.



Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current	
	Vz @ IT			Zzt @ IT		Zzk @ IK		IR @ VR	
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	uA	V
<b>5.0 Watt Zener</b>									
1N5348B	11.0	10.5	11.6	2.5	125	125	1.0	5.0	8.4
1N5349B	12.0	11.4	12.6	2.5	100	125	1.0	2.0	9.1
1N5350B	13.0	12.4	13.7	2.5	100	100	1.0	1.0	9.9
1N5351B	14.0	13.3	14.7	2.5	100	75	1.0	1.0	10.6
1N5352B	15.0	14.3	15.8	2.5	75	75	1.0	1.0	11.6
1N5353B	16.0	15.2	16.8	2.5	75	75	1.0	1.0	12.2
1N5354B	17.0	16.2	17.9	2.5	70	75	1.0	0.5	12.9
1N5355B	18.0	17.1	18.9	2.5	65	75	1.0	0.5	13.7
1N5356B	19.0	18.1	20.0	3.0	65	75	1.0	0.5	14.4
1N5356B	20.0	19.0	21.0	3.0	65	75	1.0	0.5	15.2
1N5358B	22.0	20.9	23.1	3.5	50	75	1.0	0.5	16.7
1N5359B	24.0	22.8	25.2	3.5	50	100	1.0	0.5	18.2
1N5360B	25.0	23.8	26.3	4.0	50	110	1.0	0.5	19.0
1N5361B	27.0	25.7	28.4	5.0	50	120	1.0	0.5	20.6
1N5362B	28.0	26.6	29.4	6.0	50	130	1.0	0.5	21.2
1N5363B	30.0	28.5	31.5	8.0	40	140	1.0	0.5	22.8
1N5364B	33.0	31.4	34.7	10	40	150	1.0	0.5	25.1
1N5365B	36.0	34.2	37.8	11	30	160	1.0	0.5	27.4
1N5366B	39.0	37.1	41.0	14	30	170	1.0	0.5	29.7



## RATING AND CHARACTERISTIC CURVES

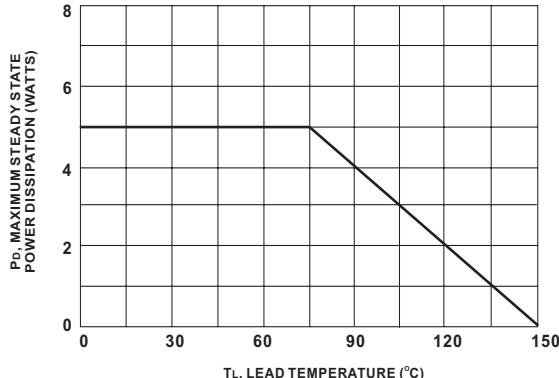


Fig.1 Power temperature Derating Curve

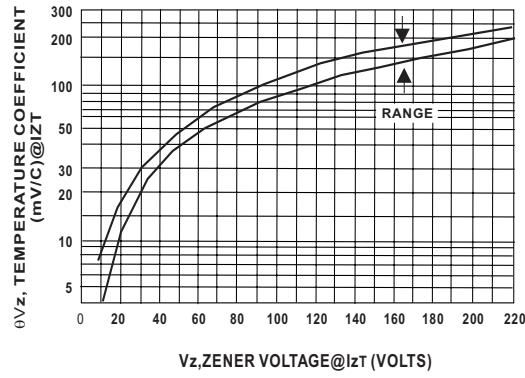


Fig.2 Temperature Coefficient-Range  
for Units 11 to 39 Volts

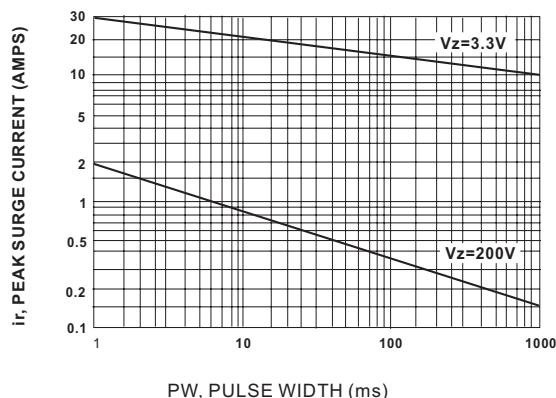


Fig.3 Peak Surge Current versus Pulse Width

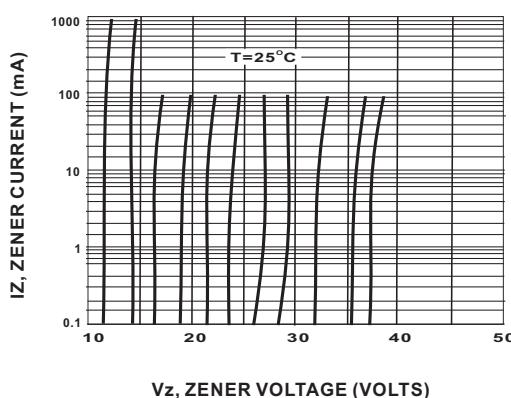


Fig.4 Zener Voltage versus Zener Current  
 $V_z=11$  thru 39 Volts