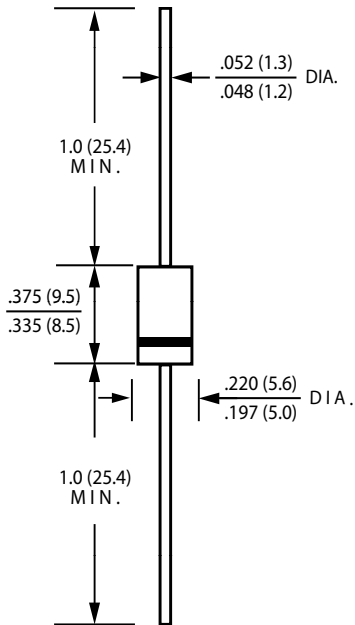




# 1N53xxB



## 5W Zener Diode



### DO-201AD

Dimensions in inches and (millimeters)



Ordering Information	
Part Number	Compound
1N53xxB	General
1N53xxB-H	Halogen Free

PRIMARY CHARACTERISTICS	
$V_{RRM}$	6.2~200V
$V_F$	1.2V
$T_J \text{ max}$	150°C

#### Features

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipat
- For use in stabilizing and clipping circuits with high power rating

#### Mechanical Data

- Case : DO-201AD
- Epoxy : UL94V-0 rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity : Color band denotes cathode end
- Weight : 1.071 gram

#### Absolute Maximum Ratings

Parameter	Symbol	Value	UNIT
DC Power Dissipation at TL = 75 °C (Note1)	$P_D$	5.0	W
Maximum Forward Voltage at IF = 1 A.	$V_F$	1.2	V
Junction Temperature Range	$T_J$	- 55 to + 150	°C
Storage Temperature Range	$T_{STG}$	- 55 to + 150	°C

Note:

(1) TL = Lead temperature at 3/8 " (9.5mm) from body.



1N53xxB



5W Zener Diode

5.0 Watt Zener Diodes / DO-201AD

Part Number	Nominal Zener Voltage		Max. Zener Impedance				Max. Reverse Leakage Current		Max. DC Zener Current	Marking Code
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$I_{ZM}$	
	Nom. V	mA	$\Omega$	mA	$\Omega$	mA	$\mu A$	V	mA	
1N5341B	6.2	200	1.0	200	200	1.0	1.0	3.0	765	1N5341B
1N5342B	6.8	175	1.0	175	200	1.0	10.0	5.2	700	1N5342B
1N5343B	7.5	175	1.5	175	200	1.0	10.0	5.7	630	1N5343B
1N5344B	8.2	150	1.5	150	200	1.0	10.0	6.2	580	1N5344B
1N5345B	8.7	150	2.0	150	200	1.0	10.0	6.6	545	1N5345B
1N5346B	9.1	150	2.0	150	150	1.0	7.5	6.9	520	1N5346B
1N5347B	10.0	125	2.0	125	125	1.0	5.0	7.6	475	1N5347B
1N5348B	11.0	125	2.5	125	125	1.0	5.0	8.4	430	1N5348B
1N5349B	12.0	100	2.5	100	125	1.0	2.0	9.1	395	1N5349B
1N5350B	13.0	100	2.5	100	100	1.0	1.0	9.9	365	1N5350B
1N5351B	14.0	100	2.5	100	75	1.0	1.0	10.6	340	1N5351B
1N5352B	15.0	75	2.5	75	75	1.0	1.0	11.5	315	1N5352B
1N5353B	16.0	75	2.5	75	75	1.0	1.0	12.2	295	1N5353B
1N5354B	17.0	70	2.5	70	75	1.0	0.5	12.9	280	1N5354B
1N5355B	18.0	65	2.5	65	75	1.0	0.5	13.7	265	1N5355B
1N5356B	19.0	65	3.0	65	75	1.0	0.5	14.4	250	1N5356B
1N5357B	20.0	65	3.0	65	75	1.0	0.5	15.2	237	1N5357B
1N5358B	22.0	50	3.5	50	75	1.0	0.5	16.7	216	1N5358B
1N5359B	24.0	50	3.5	50	100	1.0	0.5	18.2	198	1N5359B
1N5360B	25.0	50	4.0	50	110	1.0	0.5	19.0	190	1N5360B
1N5361B	27.0	50	5.0	50	120	1.0	0.5	20.6	176	1N5361B
1N5362B	28.0	50	6.0	50	130	1.0	0.5	21.2	170	1N5362B
1N5363B	30.0	40	8.0	40	140	1.0	0.5	22.8	158	1N5363B
1N5364B	33.0	40	10.0	40	150	1.0	0.5	25.1	144	1N5364B
1N5365B	36.0	30	11.0	30	160	1.0	0.5	27.4	132	1N5365B
1N5366B	39.0	30	14.0	30	170	1.0	0.5	29.7	122	1N5366B
1N5367B	43.0	30	20.0	30	190	1.0	0.5	32.7	110	1N5367B
1N5368B	47.0	25	25.0	25	210	1.0	0.5	35.8	100	1N5368B
1N5369B	51.0	25	27.0	25	230	1.0	0.5	38.8	93	1N5369B
1N5370B	56.0	20	35.0	20	280	1.0	0.5	42.6	86	1N5370B
1N5371B	60	20	40	20	350	1.0	0.5	45.5	79.0	1N5371B
1N5372B	62	20	42	20	400	1.0	0.5	47.1	76.0	1N5372B
1N5373B	68	20	44	20	500	1.0	0.5	51.7	70.0	1N5373B
1N5374B	75	20	45	20	620	1.0	0.5	56.0	63.0	1N5374B
1N5375B	82	15	65	15	720	1.0	0.5	62.2	58.0	1N5375B
1N5376B	87	15	75	15	760	1.0	0.5	66.0	54.5	1N5376B
1N5377B	91	15	75	15	760	1.0	0.5	69.2	52.5	1N5377B
1N5378B	100	12	90	12	800	1.0	0.5	76.0	47.5	1N5378B
1N5379B	110	12	125	12	1000	1.0	0.5	83.6	43.0	1N5379B
1N5380B	120	10	170	10	1150	1.0	0.5	91.2	39.5	1N5380B
1N5381B	130	10	190	10	1250	1.0	0.5	98.8	36.6	1N5381B
1N5382B	140	8	230	8	1500	1.0	0.5	106.0	34.0	1N5382B

**1N53xxB****5W Zener Diode**

Part Number	Nominal Zener Voltage		Max. Zener Impedance				Max. Reverse Leakage Current		Max. DC Zener Current	Marking Code
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$I_{ZM}$	
	Nom. V	mA	$\Omega$	mA	$\Omega$	mA	$\mu A$	V	mA	
1N5383B	150	8	330	8	1500	1.0	0.5	114.0	31.6	1N5383B
1N5384B	160	8	350	8	1650	1.0	0.5	122.0	29.4	1N5384B
1N5385B	170	8	380	8	1750	1.0	0.5	129.0	28.0	1N5385B
1N5386B	180	5	430	5	1750	1.0	0.5	137.0	26.4	1N5386B
1N5387B	190	5	450	5	1850	1.0	0.5	144.0	25.0	1N5387B
1N5388B	200	5	480	5	1850	1.0	0.5	152.0	23.6	1N5388B

Notes :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on  $I_{ZT}$  per JEDEC method



Fig. 1 - Power Temperature Derating Curve

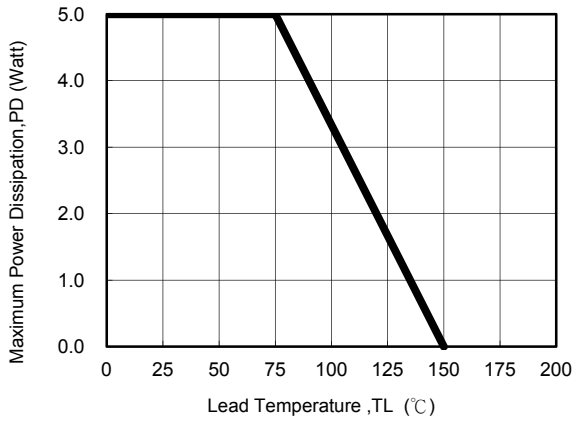


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

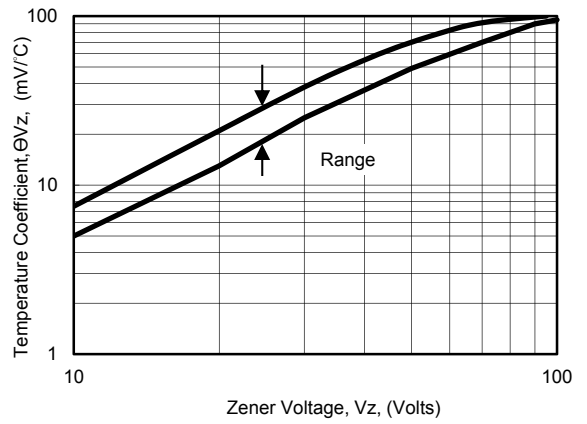


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

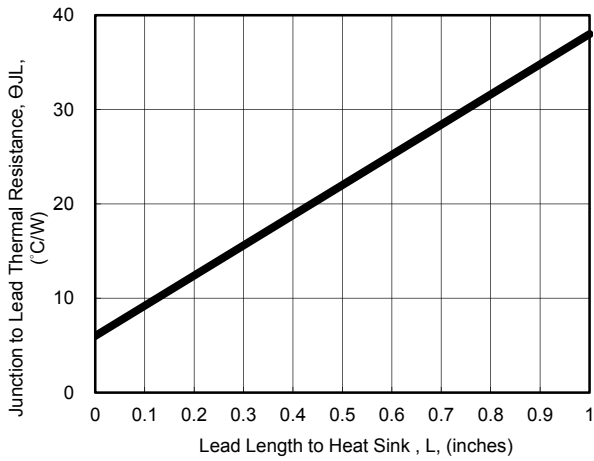


FIG.4 - Maximum Surge Power

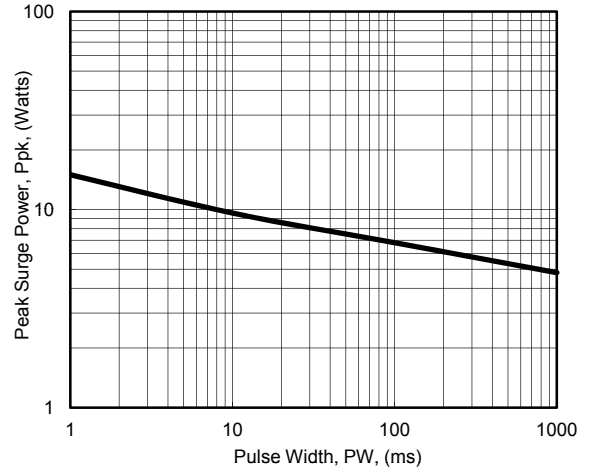


FIG.5 - Typical Thermal Response L, Lead Length=3/8inch

