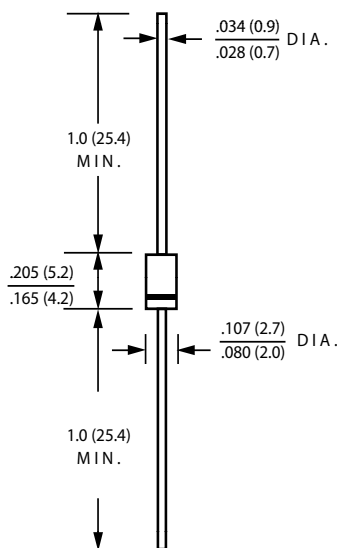




DO-41

Dimensions in inches and (millimeters)



Ordering Information

Part Number	Remark
1N47xxA	General
1N47xxA-H	Halogen Free

PRIMARY CHARACTERISTICS

V_{RRM}	6.8~330V
V_F	1.2V
$T_J \text{ max}$	175°C

Features

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

Mechanical Data

- Case : DO-41
- Epoxy : UL94V-0 rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity : Color band denotes cathode end
- Weight : 0.318 gram (approximate)

Absolute Maximum Ratings

Parameter	Symbol	Value	UNIT
DC Power Dissipation at $T_L = 50^\circ\text{C}$ (Note1)	P_D	1.0	W
Maximum Forward Voltage at $I_F = 200 \text{ mA}$	V_F	1.2	V
Maximum Thermal Resistance Junction to Ambient Air (Note2)	R_{thJA}	170	K/W
Junction Temperature Range	T_J	- 55 to + 175	°C
Storage Temperature Range	T_{STG}	- 55 to + 175	°C

Note:

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

(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.



1N47xxA SERIES



1 W Zener Diode

1 Watt Zener Diodes / DO-41

Part Number	Nominal Zener Voltage		Max. Zener Impedance				Max. Reverse Leakage Current		Max. DC Zener Current	Max. Surge Current	Marking Code
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	I_{RM}	
	Nom. V	mA	Ω	mA	Ω	mA	μA	V	mA	mA _{pk}	
1N4736A	6.8	37.0	3.5	37.0	700	1.00	5.0	4.0	133.0	660	1N4736A
1N4737A	7.5	34.0	4.0	34.0	700	0.50	5.0	5.0	121.0	605	1N4737A
1N4738A	8.2	31.0	4.5	31.0	700	0.50	5.0	6.0	110.0	550	1N4738A
1N4739A	9.1	28.0	5.0	28.0	700	0.50	0.5	7.0	100.0	500	1N4739A
1N4740A	10.0	25.0	7.0	25.0	700	0.25	0.5	7.6	91.0	454	1N4740A
1N4741A	11.0	23.0	8.0	23.0	700	0.25	0.5	8.4	83.0	414	1N4741A
1N4742A	12.0	21.0	9.0	21.0	700	0.25	0.5	9.1	76.0	380	1N4742A
1N4743A	13.0	19.0	10.0	19.0	700	0.25	0.5	9.9	69.0	344	1N4743A
1N4744A	15.0	17.0	14.0	17.0	700	0.25	0.5	11.4	61.0	305	1N4744A
1N4745A	16.0	15.5	16.0	15.5	700	0.25	0.5	12.2	57.0	285	1N4745A
1N4746A	18.0	14.0	20.0	14.0	700	0.25	0.5	13.7	50.0	250	1N4746A
1N4747A	20.0	12.5	22.0	12.5	750	0.25	0.5	15.2	45.0	225	1N4747A
1N4748A	22.0	11.5	23.0	11.5	750	0.25	0.5	16.7	41.0	205	1N4748A
1N4749A	24.0	10.5	25.0	10.5	750	0.25	0.5	18.2	38.0	190	1N4749A
1N4750A	27.0	9.5	35.0	9.5	750	0.25	0.5	20.6	34.0	170	1N4750A
1N4751A	30.0	8.5	40.0	8.5	750	0.25	0.5	22.8	30.0	150	1N4751A
1N4752A	33.0	7.5	45.0	7.5	1000	0.25	0.5	25.1	27.0	135	1N4752A
1N4753A	36.0	7.0	50.0	7.0	1000	0.25	0.5	27.4	25.0	125	1N4753A
1N4754A	39.0	6.5	60.0	6.5	1000	0.25	0.5	29.7	23.0	115	1N4754A
1N4755A	43.0	6.0	70.0	6.0	1000	0.25	0.5	32.7	22.0	110	1N4755A
1N4756A	47.0	5.5	80.0	5.5	1500	0.25	0.5	35.8	19.0	95	1N4756A
1N4757A	51.0	5.0	95.0	5.0	1500	0.25	0.5	38.8	18.0	90	1N4757A
1N4758A	56.0	4.5	110.0	4.5	1500	0.25	0.5	42.6	16.0	80	1N4758A
1N4759A	62.0	4.0	125.0	4.0	2000	0.25	0.5	47.1	14.0	70	1N4759A
1N4760A	68.0	3.7	150.0	3.7	2000	0.25	0.5	51.7	13.0	65	1N4760A
1N4761A	75.0	3.3	175.0	3.3	2000	0.25	0.5	56.0	12.0	60	1N4761A
1N4762A	82.0	3.0	200.0	3.0	2000	0.25	0.5	62.2	11.0	55	1N4762A
1N4763A	91.0	2.8	250.0	2.8	3000	0.25	0.5	69.2	10.0	50	1N4763A
1N4764A	100.0	2.5	350.0	2.5	3000	0.25	0.5	76.0	9.0	45	1N4764A
Z1110A	110.0	2.3	450.0	2.3	4000	0.25	0.5	83.6	8.6	40	Z1110A
Z1120A	120.0	2.0	550.0	2.0	4500	0.25	0.5	91.2	7.8	37	Z1120A
Z1130A	130	1.9	700	1.9	5000	0.25	0.5	98.8	7.0	34	Z1130A
Z1150A	150	1.7	1000	1.7	6000	0.25	0.5	114.0	6.4	30	Z1150A
Z1160A	160	1.6	1100	1.6	6500	0.25	0.5	121.6	5.8	28	Z1160A
Z1180A	180	1.4	1200	1.4	7000	0.25	0.5	136.8	5.2	25	Z1180A
Z1200A	200	1.2	1900	1.2	9990	0.25	0.5	152.0	4.7	22	Z1200A
Z1220A	220	1.0	1600	1.0	8000	0.25	0.5	167.2	4.0	20	Z1220A
Z1240A	240	0.9	1800	0.9	8500	0.25	0.5	182.4	3.8	19	Z1240A
Z1250A	250	0.9	2000	0.9	9000	0.25	0.5	190.0	3.6	18	Z1250A



1N47xxA SERIES



1 W Zener Diode

1 Watt Zener Diodes / DO-41

Part Number	Nominal Zener Voltage		Max. Zener Impedance				Max. Reverse Leakage Current		Max. DC Zener Current	Max. Surge Current	Marking Code
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	I_{RM}	
	Nom. V	mA	Ω	mA	Ω	mA	μA	V	mA	mApk	
Z1270A	270	0.8	2100	0.8	9000	0.25	0.5	205.0	3.3	16	Z1270A
Z1300A	300	0.8	2300	0.8	9500	0.25	0.5	228.0	3.0	15	Z1300A
Z1330A	330	0.7	2500	0.7	9500	0.25	0.5	250.2	2.7	13	Z1330A

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

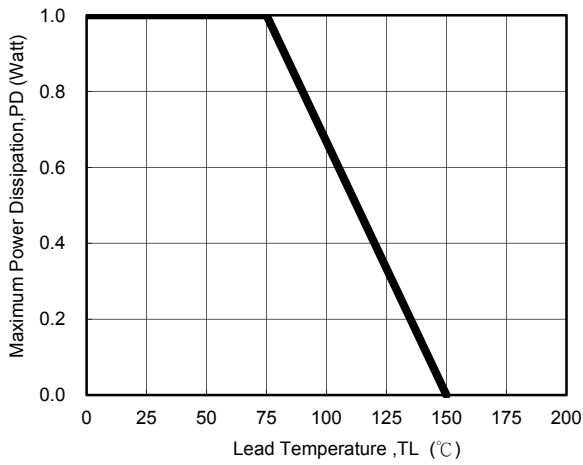


Fig. 1 - Power Temperature Derating Curve

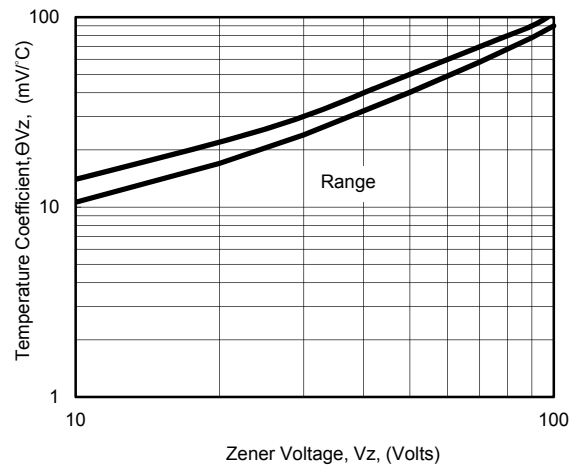


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

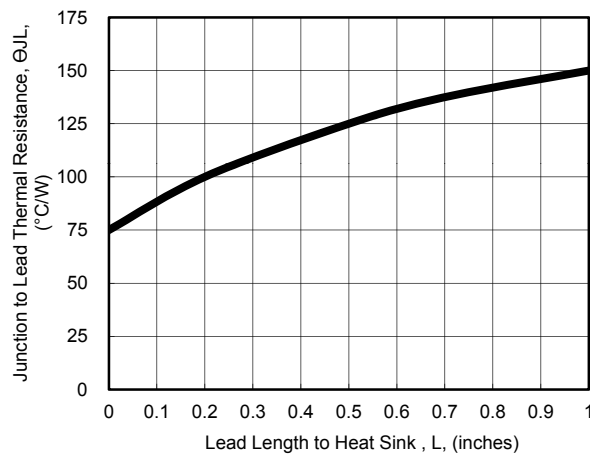


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

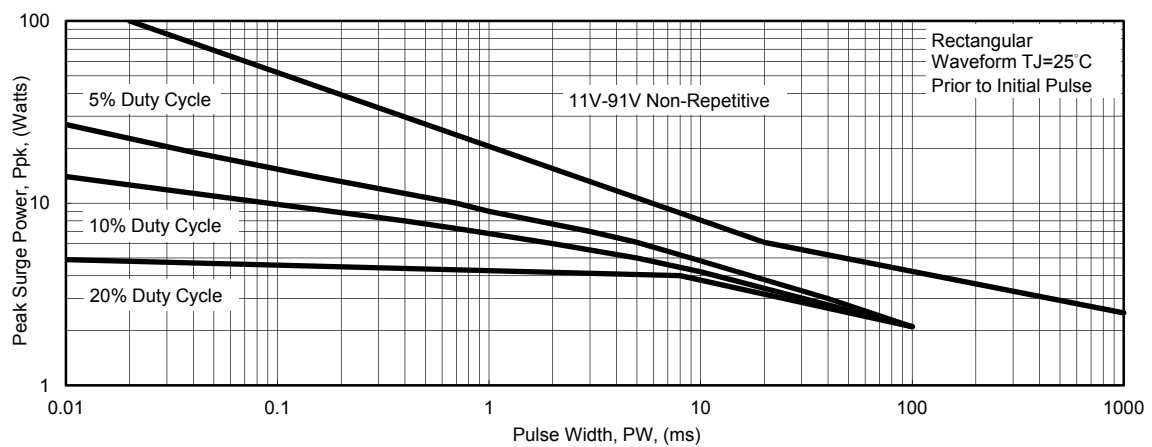


Fig. 4 - Maximum Surge Power