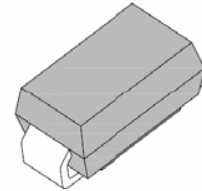


## 1W Surface Mount Zener Diodes

### Features

- For surface mounted applications in order to optimize board space
- Built-in strain relief
- Glass passivated junction
- Low inductance
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- RoHS Compliant



SMA



### Mechanical Data

<b>Case:</b>	JEDEC SMA (DO-214AC) molded plastic over passivated junction
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Solder plated, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	0.064 gram

### Maximum Ratings *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbol	Description	Value	Unit	Conditions
<b>P<sub>D</sub></b>	Peak Pulse Power Dissipation at Ta=50° C	1.0	W	Note 1
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	10	A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-55 to +150	°C	

- Note:**
1. Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.
  2. Measured on 8.3ms, and single half sine-wave or equivalent square wave ,duty cycle=4 pulses per minute maximum.
  3. Tolerance and type number designation. The type numbers listed have a standard tolerance on the nominal zener voltage of ± 5%.

# 1W Surface Mount Zener Diodes

## Z1SMA4736A - Z1SMA57A

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

P/N	Marking Code	Normal Zener Voltage				Max. Zener impedance			Max. reverse leakage current	
		VZ @ IZT				ZZT @ IZT	Zzk @ Izk		ID @ VR	
		Nom.(V) (V)	Min. (V)	Max. (V)	IZT (mA)	$\Omega$	$\Omega$	mA	$\mu A$	VR (V)
Z1SMA4736A	736B	6.8	6.46	7.14	37	3.5	700	1.0	5	4
Z1SMA4737A	737B	7.5	7.13	7.88	34	4	700	0.50	5	5
Z1SMA4738A	738B	8.2	7.79	8.61	31	4.5	700	0.50	5	6
Z1SMA4739A	739B	9.1	8.65	9.56	28	5	700	0.50	0.5	7
Z1SMA4740A	740B	10	9.50	10.50	25	7	700	0.25	0.5	7.6
Z1SMA4741A	741B	11	10.45	11.55	23	8	700	0.25	0.1	8.4
Z1SMA4742A	742B	12	11.40	12.60	21	9	700	0.25	0.1	9.1
Z1SMA4743A	743B	13	12.35	13.65	19	10	700	0.25	0.1	9.9
Z1SMA4744A	744B	15	14.25	15.75	17	14	700	0.25	0.1	11.40
Z1SMA4745A	745B	16	15.20	16.80	15.5	16	700	0.25	0.1	12.20
Z1SMA4746A	746B	18	17.10	18.90	14	20	750	0.25	0.1	13.70
Z1SMA4747A	747B	20	19.00	21.00	12.5	22	750	0.25	0.1	15.20
Z1SMA4748A	748B	22	20.90	23.10	11.5	23	750	0.25	0.1	16.70
Z1SMA4749A	749B	24	22.80	25.20	10.5	25	750	0.25	0.1	18.20
Z1SMA4750A	750B	27	25.65	28.35	9.5	35	750	0.25	0.1	20.60
Z1SMA4751A	751B	30	28.50	31.50	8.5	40	1000	0.25	0.1	22.80
Z1SMA4752A	752B	33	31.35	34.65	7.5	45	1000	0.25	0.1	25.10
Z1SMA4753A	753B	36	34.20	37.80	7	50	1000	0.25	0.1	27.40
Z1SMA4754A	754B	39	37.05	40.95	6.5	60	1000	0.25	0.1	29.70
Z1SMA4755A	755B	43	40.85	45.15	6	70	1500	0.25	0.1	32.70
Z1SMA4756A	756B	47	44.65	49.35	5.5	80	1500	0.25	0.1	35.80
Z1SMA4757A	757B	51	48.45	53.55	5	95	1500	0.25	0.1	38.80

# 1W Surface Mount Zener Diodes

## Z1SMA4736A - Z1SMA57A

### Rating and Characteristics Curves

Fig.1-Power Temperature Derating

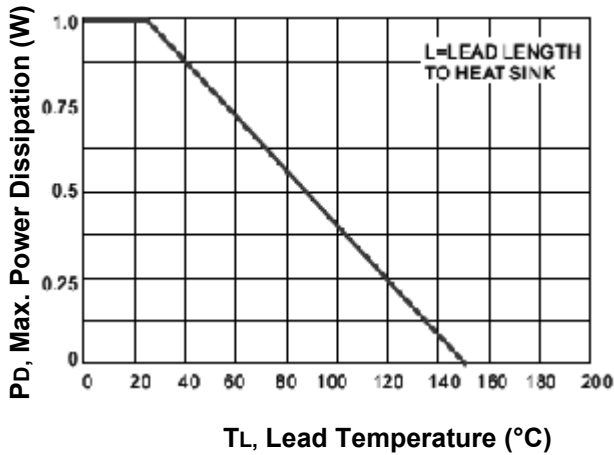


Fig.2 Typical Forward Characteristics

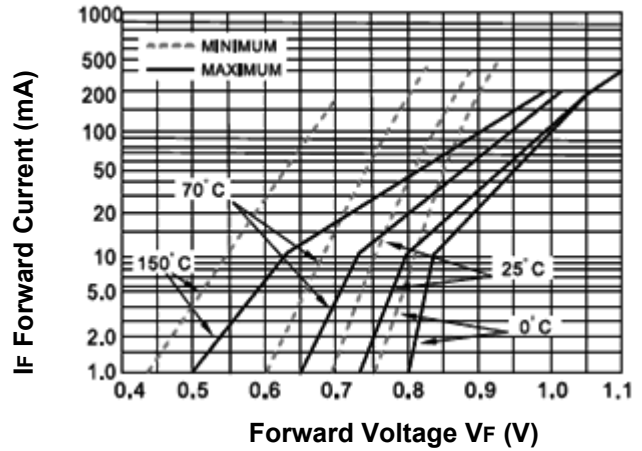
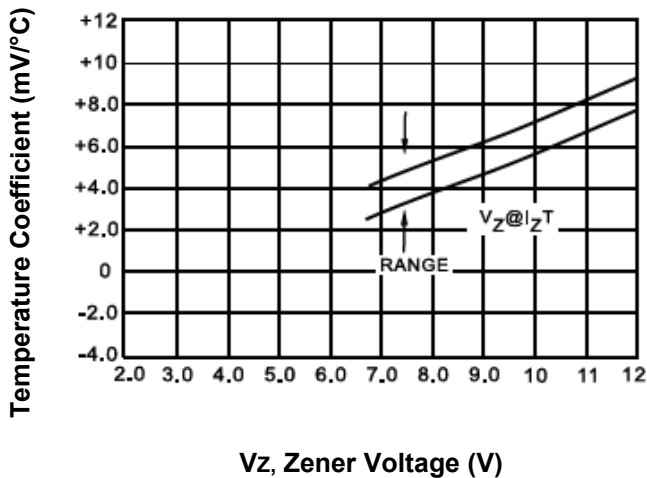


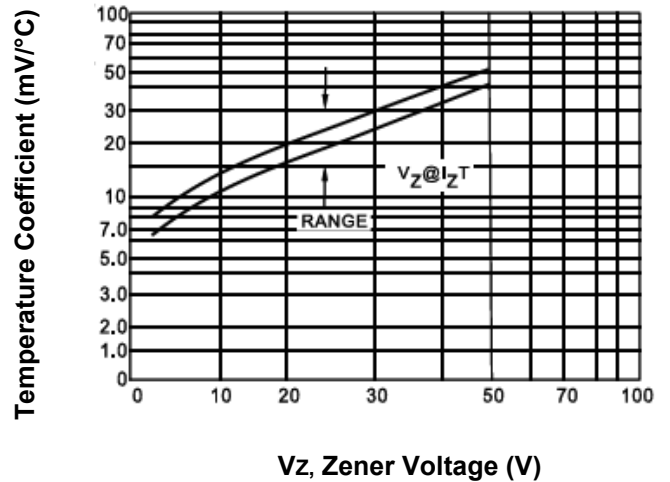
Fig.3-Temperature Coefficients

(-55°C to +150°C Temperature range; 90% of the units are in the range indicated.)

a - Range for 12 voltage



b - Range for 12 to 51 voltages



# 1W Surface Mount Zener Diodes

## Z1SMA4736A - Z1SMA57A

Fig.4-Max.Surge Power

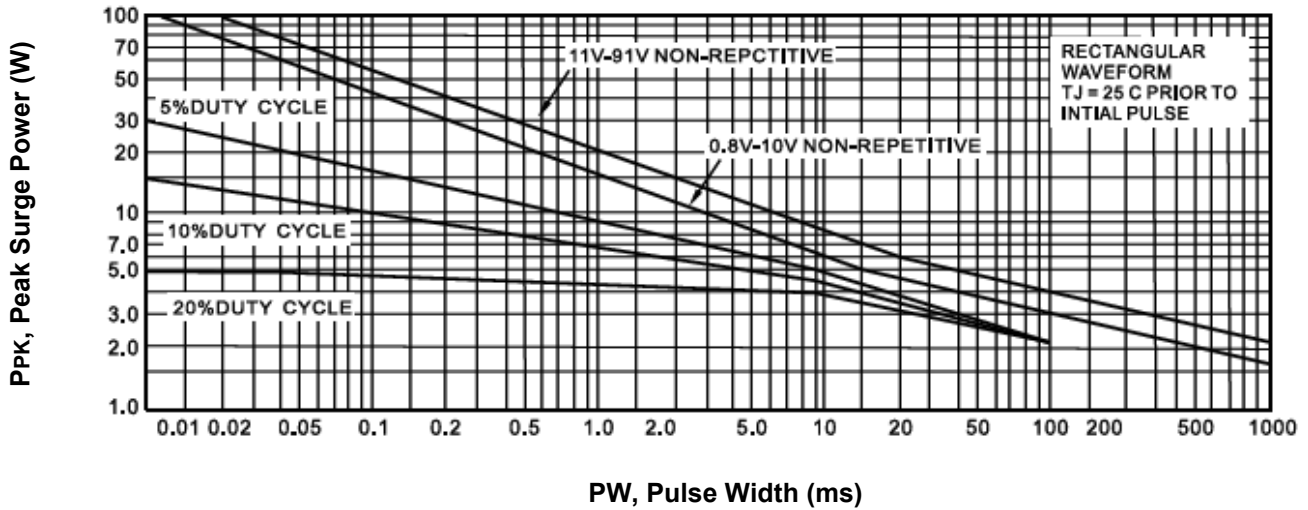


Fig.5-Typical Thermal Resistance vs Lead Length

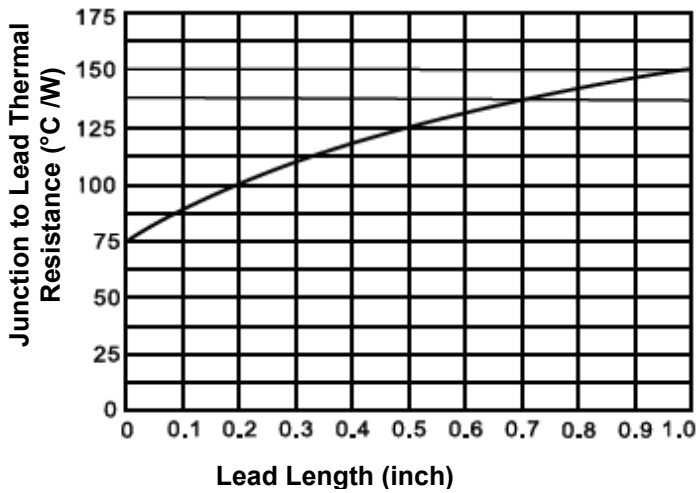
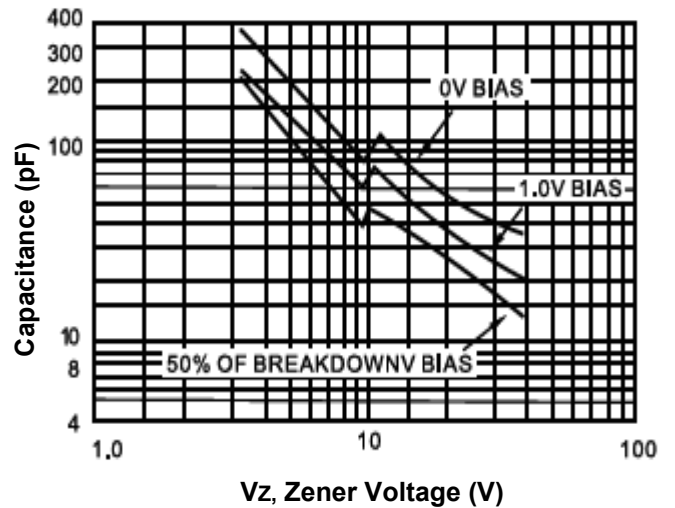
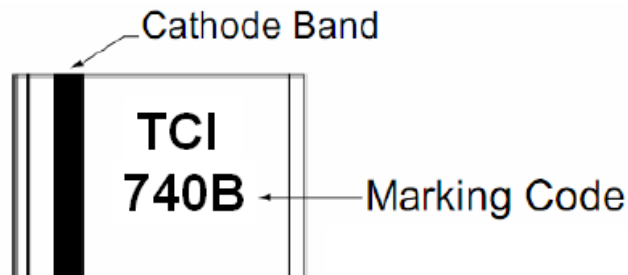


Fig.6-Typical Capacitance vs Zener Voltage



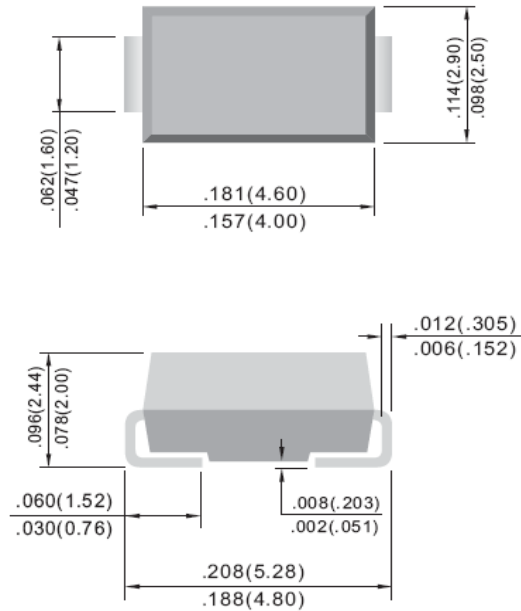
### Marking Information:



# 1W Surface Mount Zener Diodes

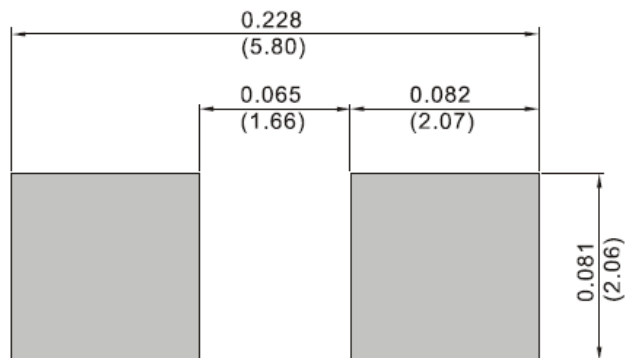
## Z1SMA4736A - Z1SMA57A

### Dimensions in inches (mm)



### SMA

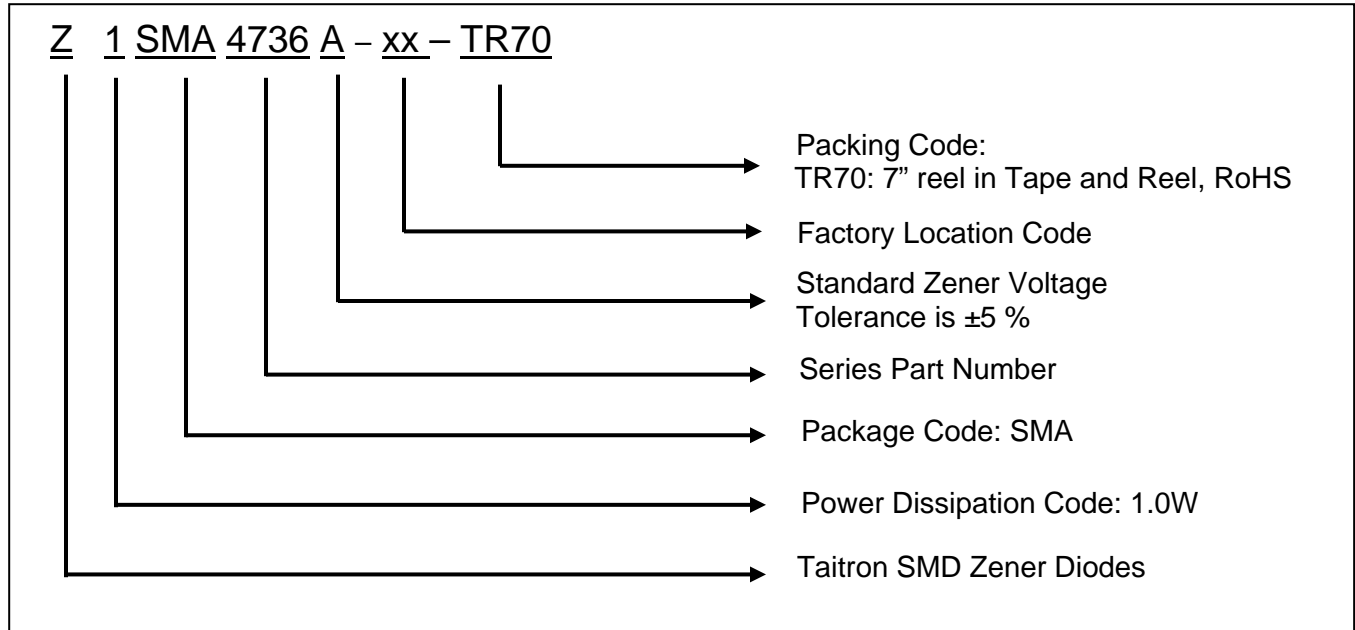
### Mounting pad layout in inches (mm)



# 1W Surface Mount Zener Diodes

## Z1SMA4736A - Z1SMA57A

### Ordering Information



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