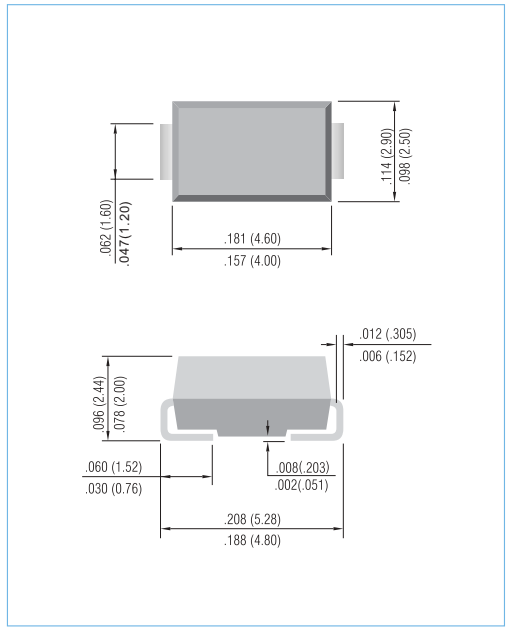
PANJIT SEMI CONDUCTOR

1SMA4736~1SMA4757

SURFACE MOUNT SILICON ZENER DIODE

VOLTAGE 6.8 to 51 Volts **POWER** 1.0 Watts

SMA / DO-214AC Unit: inch (mm)



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_R less than 5.0μA above 11V
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- High temperature soldering : 260°C /10 seconds at terminals
- In compliance with EU RoHS 2002/95/EC directives

MECHANICALDATA

- Case: JEDEC DO-214AC,Molded plastic over passivated junction.
- Terminals: Solder plated,solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end (cathode)
- Standard Packaging:12mm tape (EIA-481)
- Weight: 0.0023 ounce, 0.0679 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
Peak Pulse Power Dissipation on T_A=50°C (Notes A) Derate above 50 °C	P_D	1.0	W atts
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	10	Amps
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to + 150	°C

NOTES:

A. Mounted on 5.0mm2 (.013mm thick) land areas.

B. Measured on8.3ms, and single half sine-wave or equivalent square wave ,duty cycle=4 pulses per minute maximum.

C. Tolerance and Type Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of ± 5%.

1SMA4736~1SMA4757

Part Number	Nominal Zener Voltage			Maximum Zener Impedance				Max Reverse Leakage Current		Marking Code
	V_Z @ I_{ZT}			Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @V_R		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	uA Max	V	
1.0 Watt ZENER										
1SMA4736	6.8	6.46	7.14	3.5	37	700	1	5	4	736B
1SMA4737	7.5	7.13	7.88	4	34	700	0.5	5	5	737B
1SMA4738	8.2	7.79	8.61	4.5	31	700	0.5	5	6	738B
1SMA4739	9.1	8.65	9.56	5	28	700	0.5	0.5	7	739B
1SMA4740	10	9.5	10.5	7	25	700	0.25	0.5	7.6	740B
1SMA4741	11	10.45	11.55	8	23	700	0.25	0.1	8.4	741B
1SMA4742	12	11.4	12.6	9	21	700	0.25	0.1	9.1	742B
1SMA4743	13	12.35	13.65	10	19	700	0.25	0.1	9.9	743B
1SMA4744	15	14.25	15.75	14	17	700	0.25	0.1	11.4	744B
1SMA4745	16	15.2	16.8	16	15.5	700	0.25	0.1	12.2	745B
1SMA4746	18	17.1	18.9	20	14	750	0.25	0.1	13.7	746B
1SMA4747	20	19	21	22	12.5	750	0.25	0.1	15.2	747B
1SMA4748	22	20.9	23.1	23	11.5	750	0.25	0.1	16.7	748B
1SMA4749	24	22.8	25.2	25	10.5	750	0.25	0.1	18.2	749B
1SMA4750	27	25.65	28.35	35	9.5	750	0.25	0.1	20.6	750B
1SMA4751	30	28.5	31.5	40	8.5	1000	0.25	0.1	22.8	751B
1SMA4752	33	31.35	34.65	45	7.5	1000	0.25	0.1	25.1	752B
1SMA4753	36	34.2	37.8	50	7	1000	0.25	0.1	27.4	753B
1SMA4754	39	37.05	40.95	60	6.5	1000	0.25	0.1	29.7	754B
1SMA4755	43	40.85	45.15	70	6	1500	0.25	0.1	32.7	755B
1SMA4756	47	44.65	49.35	80	5.5	1500	0.25	0.1	35.8	756B
1SMA4757	51	48.45	53.55	95	5	1500	0.25	0.1	38.8	757B

RATING AND CHARACTERISTICS CURVES

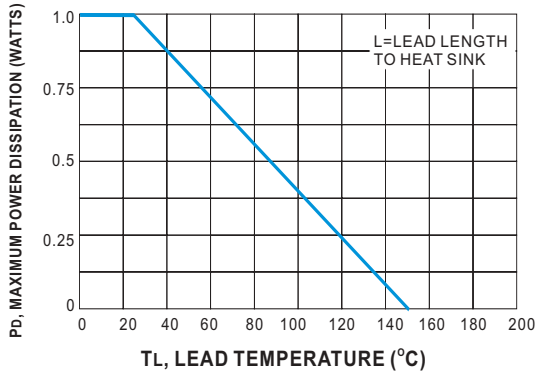


FIGURE.1 POWER TEMPERATURE DERATING CURVE

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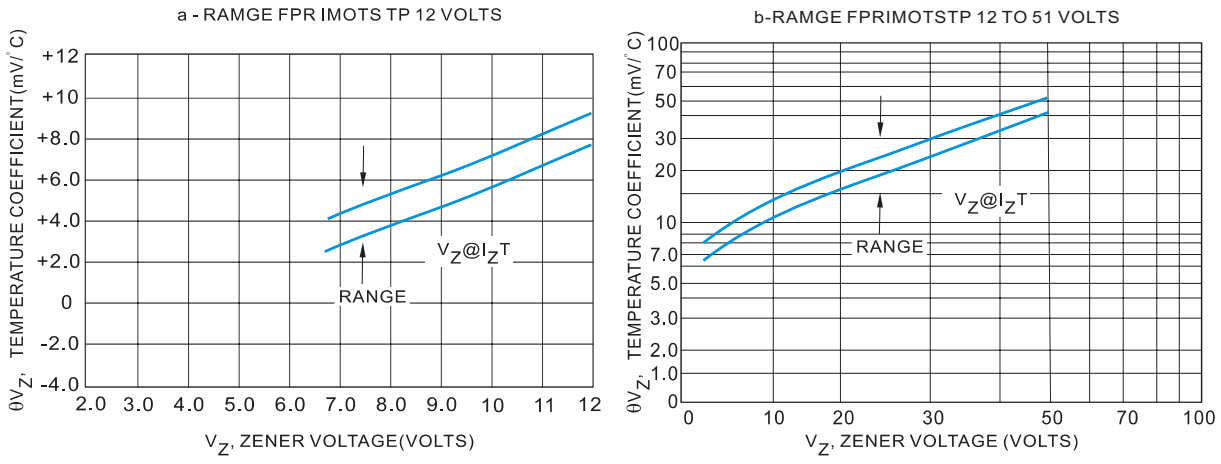


FIGURE 2 - TEMPERATURE COEFICIENTS
(-55° C TO +150° C TEMPERATURE RANGE; 90% OF THE UNITS ARE IN THE RANGES INDICATED.)

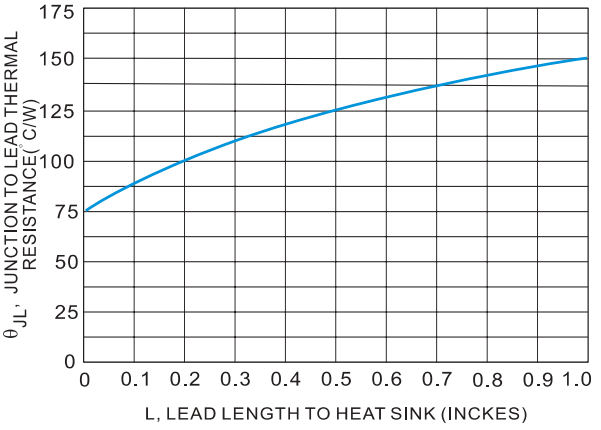


FIGURE 3 - TYPICAL THERMAL RESISTANCE versus LEAD LENGTH

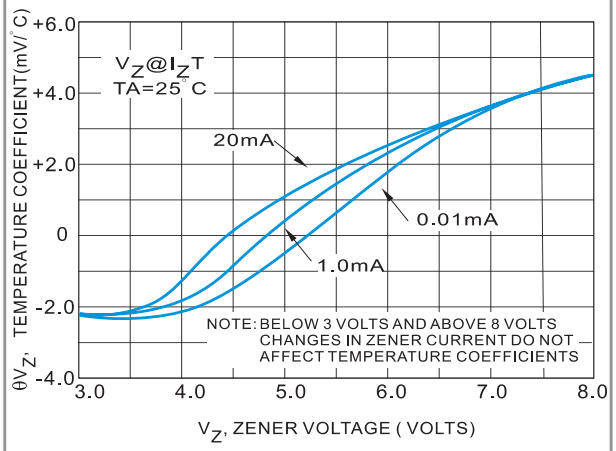
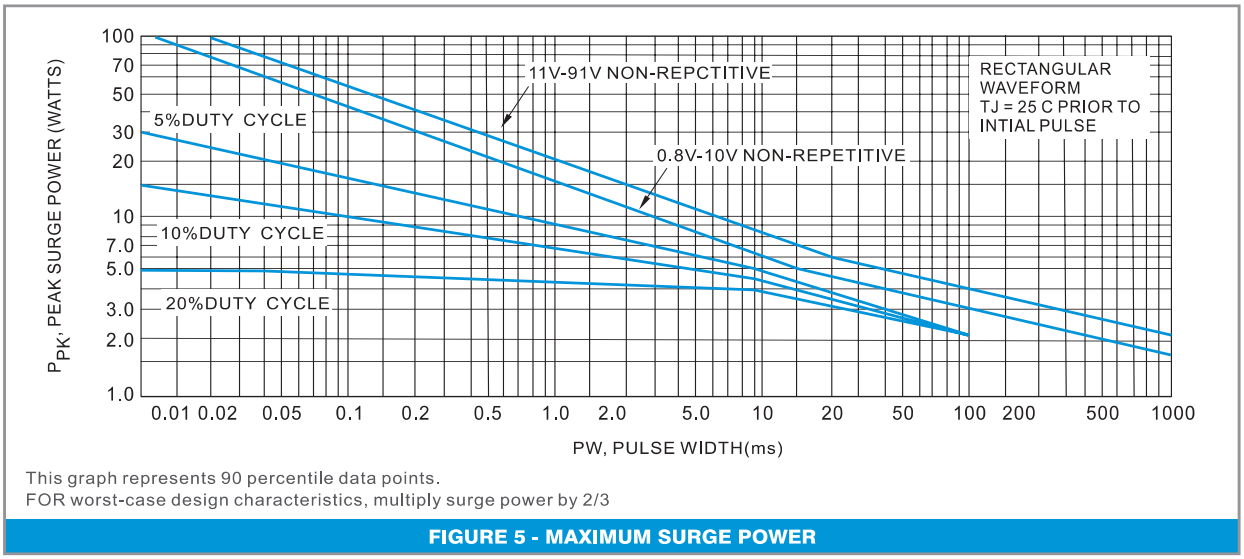


FIGURE 4 - EFFECT OF ZENER CURRENT



This graph represents 90 percentile data points.
FOR worst-case design characteristics, multiply surge power by 2/3

FIGURE 5 - MAXIMUM SURGE POWER

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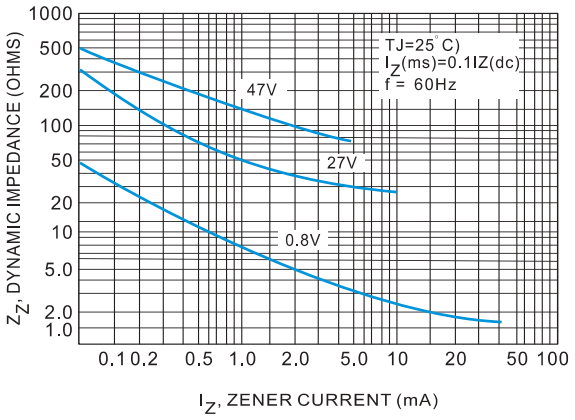


FIGURE 6 - EFFECT OF ZENER CURRENT ON ZENER IMPEDANCE

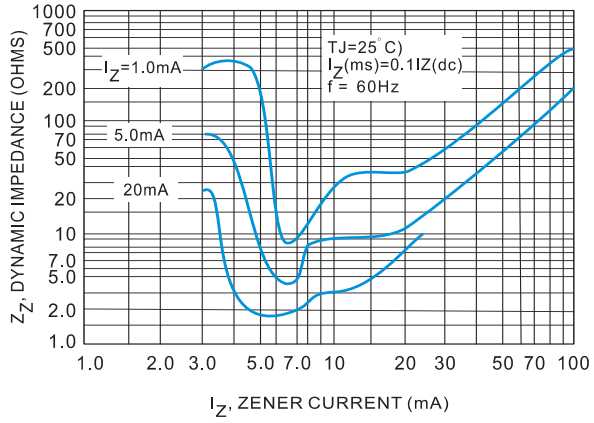


FIGURE 7 - EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

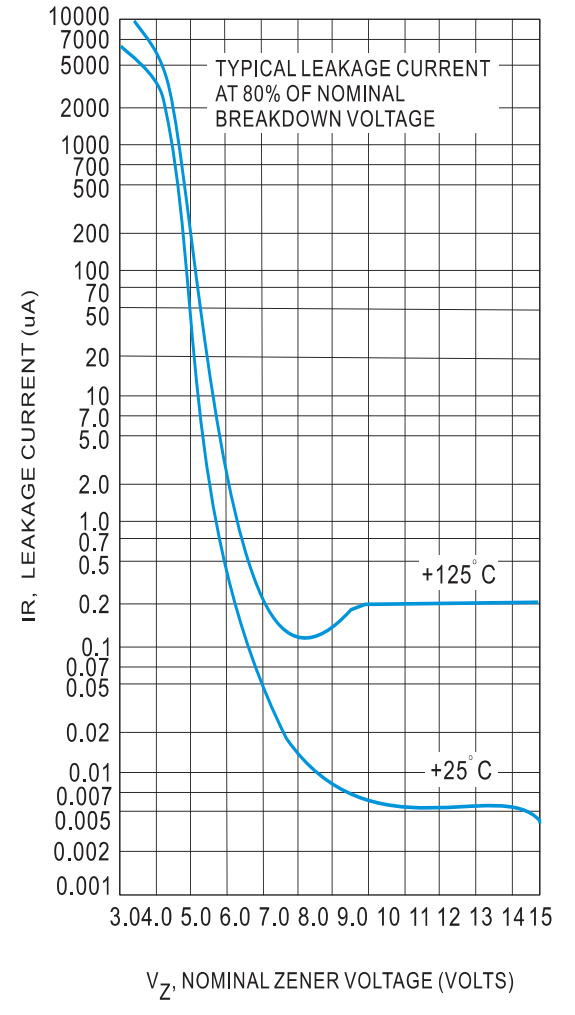


FIGURE 8 - TYPICAL LEAKAGE CURRENT

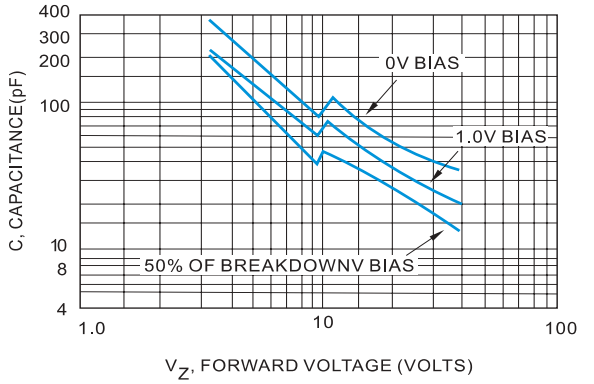


FIGURE 9 - TYPICAL CAPACITANCE versus V_Z

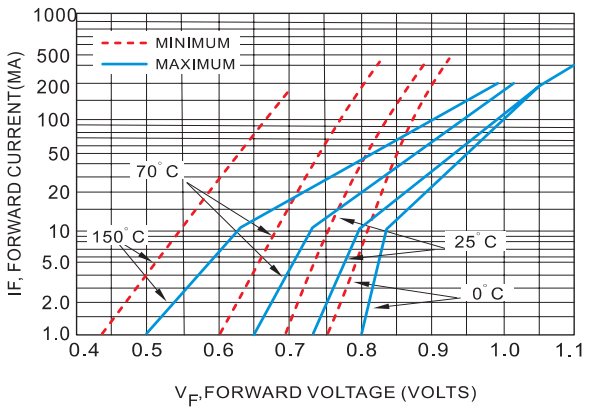
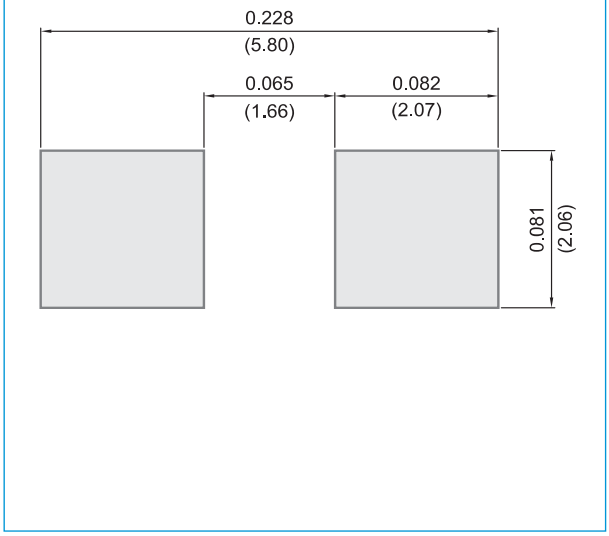


FIGURE 10 - TYPICAL FORWARD CHARACTERISTICS

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MOUNTING PAD LAYOUT

SMA Unit: inch (mm)



ORDER INFORMATION

- Packing information

  T/R - 7.5K per 13" plastic Reel

  T/R - 1.8Kper 7" plastic Reel

LEGAL STATEMENT

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