Micro Commercial Components

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DL4614 THRU DL4125

500mW Silicon Zener Diodes

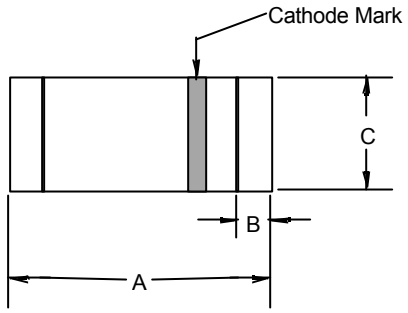
Features

- Zener Voltage Range = 1.8V to 47V
- Double Slug Type Construction
- Metallurgical Bonded Construction
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Moisture Sensitivity: Level 1

Mechanical Data

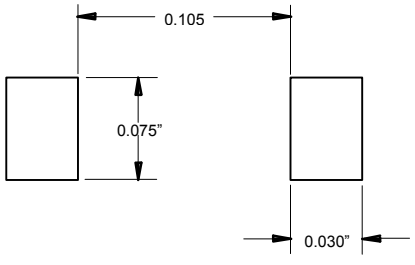
- Case: Double slug type, hermetically sealed glass
- Marking : Cathode band and type number

MINIMELF



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.134	.142	3.40	3.60	
B	.008	.016	.20	.40	
C	.055	.059	1.40	1.50	∅

SUGGESTED SOLDER PAD LAYOUT



Maximum Ratings

	Symbol	Value	Units
Max. Steady State Power Dissipation at T_L<75°C, Lead Length=3/8"	P_D	500	mW
Junction Temperature	T_J	175	°C
Storage Temperature Range	T_{STG}	-55 to 175	°C
Thermal Resistance, Junction to lead @3/8" lead length from body	RthJL	250	°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

	Symbol	Maximum	Unit
Max. Forward Voltage @ I_F=200mA	V_F	1.1	V

Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.

DL4614 thru DL4125

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ELECTRICAL CHARACTERISTICS (T_A = 25ºC unless otherwise noted, V_F = 1.1 V Max @ I_F = 200mA for all types)

Device (1)	Zener Voltage (2) V_Z (Volts) @$I_{ZT=250UA}$			Maximum Zener (I_{ZM}) Current (3)	Reverse Leakage Current (4) IR@VR		Zener Ipedance (5) ZZT@IZT
	Min	Nom	Max	mA	uA(Max)	Volts	ohm(Max)
DL4614	1.71	1.8	1.89	120	7.5	1	1200
DL4615	1.90	2.0	2.10	110	5.0	1	1250
DL4616	2.09	2.2	2.31	100	4.0	1	1300
DL4617	2.28	2.4	2.52	95	2.0	1	1400
DL4618	2.565	2.7	2.835	90	1.0	1	1500
DL4619	2.85	3.0	3.15	87	0.8	1	1600
DL4620	3.135	3.3	3.465	85	7.5	1.5	1650
DL4621	3.42	3.6	3.78	83	7.5	2	1700
DL4622	3.705	3.9	4.095	80	5.0	2	1650
DL4623	4.085	4.3	4.515	77	4.0	2	1600
DL4624	4.465	4.7	4.935	75	10.0	3	1550
DL4625	4.845	5.1	5.355	70	10.0	3	1500
DL4626	5.32	5.6	5.88	65	10.0	4	1400
DL4627	5.89	6.2	6.51	61	10.0	5	1200
DL4099	6.46	6.8	7.14	56	10.0	5.17	200
DL4100	7.125	7.5	7.875	51	10.0	5.70	200
DL4101	7.79	8.2	8.61	46	1.0	6.24	200
DL4102	8.265	8.7	9.135	44	1.0	6.61	200
DL4103	8.645	9.1	9.555	42	1.0	6.92	200
DL4104	9.5	10	10.5	38	1.0	7.60	200
DL4105	10.45	11	11.55	35	.05	8.44	200
DL4106	11.4	12	12.6	32	.05	8.12	200
DL4107	12.35	13	13.65	29	.05	9.857	200
DL4108	13.3	14	14.7	27	.05	10.65	200
DL4109	14.25	15	15.75	25	.05	11.40	100
DL4110	15.2	16	16.8	24	.05	12.15	100
DL4111	16.15	17	17.85	22	.05	12.92	100
DL4112	17.1	18	18.9	21	.05	13.67	100
DL4113	18.05	19	19.95	20	.05	14.44	150
DL4114	19	20	21	19	.01	15.20	150
DL4115	20.9	22	23.1	17	.01	16.72	150
DL4116	22.8	24	25.2	16	.01	18.25	150
DL4117	23.75	25	26.25	15	.01	19.00	150
DL4118	25.65	27	28.35	14	.01	20.45	150
DL4119	26.6	28	29.4	14	.01	21.28	200
DL4120	28.5	30	31.5	13	.01	22.80	200
DL4121	31.35	33	34.65	12	.01	25.08	200
DL4122	34.2	36	37.8	11	.01	27.38	200
DL4123	37.05	39	40.95	9.8	.01	29.65	200
DL4124	40.85	43	45.15	8.9	.01	32.65	250
DL4125	44.65	47	49.35	8.1	.01	35.75	250

NOTES:

1. TOLERANCE AND TYPE NUMBER DESIGNATION (V_Z)
The type numbers listed have a standard tolerance on the nominal zener voltage of ±5%.

2. ZENER VOLTAGE (V_Z) MEASUREMENT Nominal zener voltage is measured with the device junction in the thermal equilibrium at the lead temperature (T_L) at 30°C ±1°C and 3/8" lead length.

3. MAXIMUM ZENER CURRENT RATINGS (I_{ZM}) This data was calculated using nominal voltages. The maximum handing current capability on a worst case basis is limited by the actual zener voltage at the opertation piont and the power derating curve.

4.**Reverse Leakage Current(IR)** reverse leakage current are guaranteed and measured at VR shown on the table .

5. **Zener Impedance(ZZT) Derivation** The Zener impedance is derived from the 60 cycle ac voltage.which results when an Ac current having an rms value to 10% of the DC zener current (IZT) is superimposed on IZT.

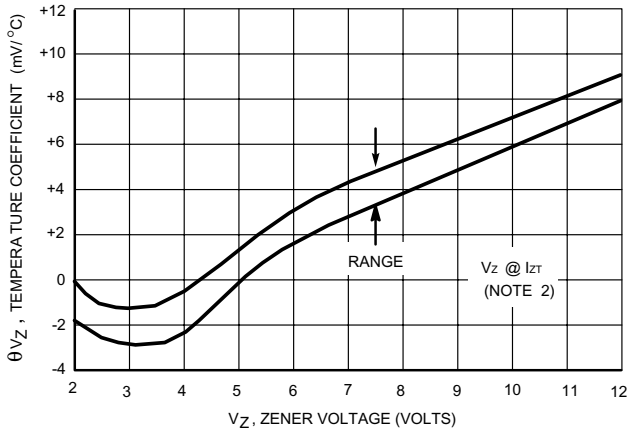

Figure 1. Range for Units to 12 Volts

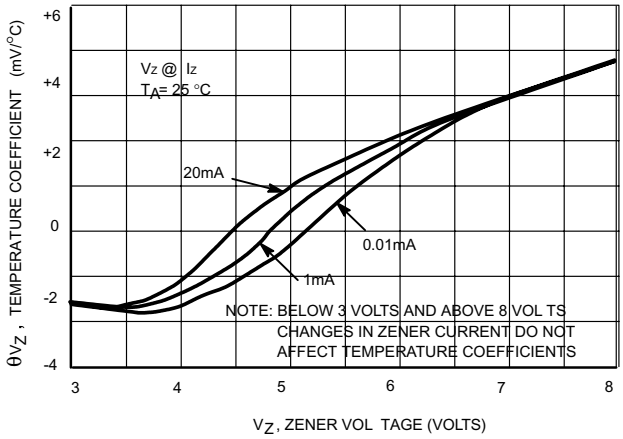

Figure 2. Effect of Zener Current

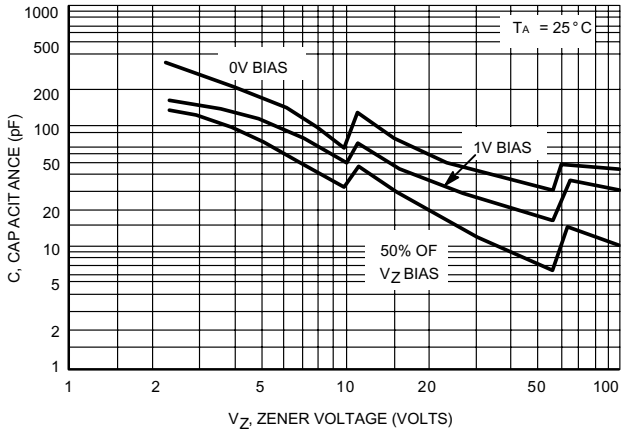

Figure 3. Typical Capacitance 2.4-100 Volts

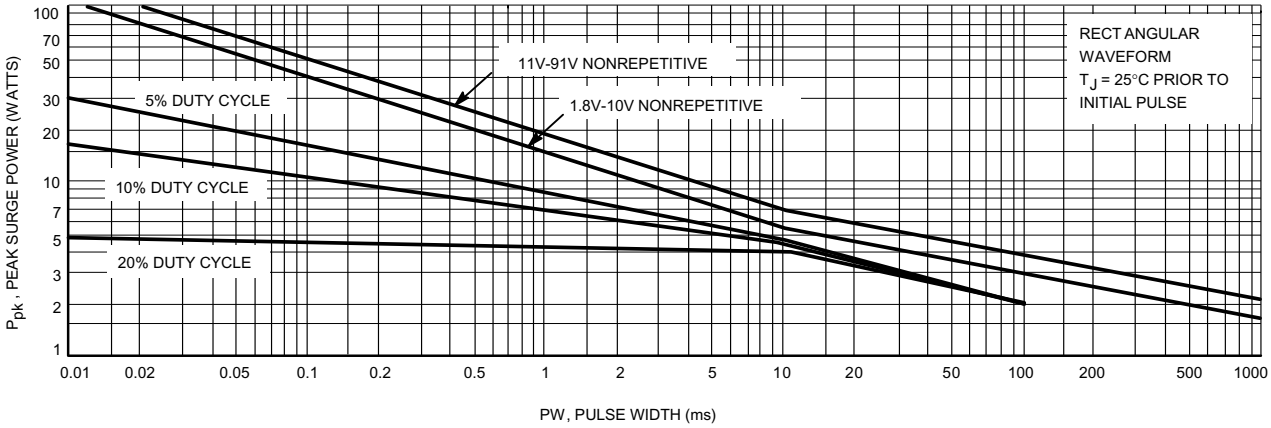

Figure 4. Maximum Surge Power 1.8-91 Volts

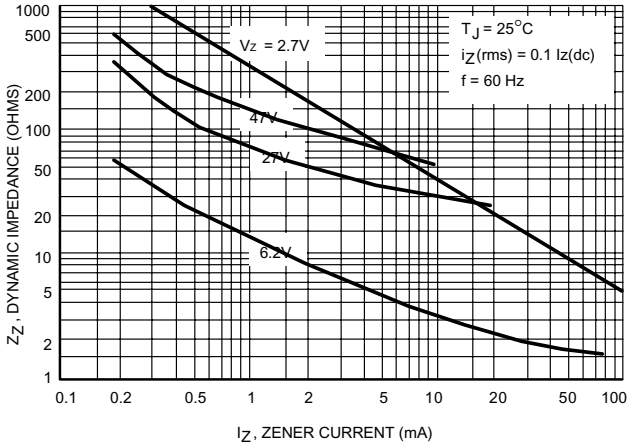

Figure 5. Effect of Zener Current on Zener Impedance

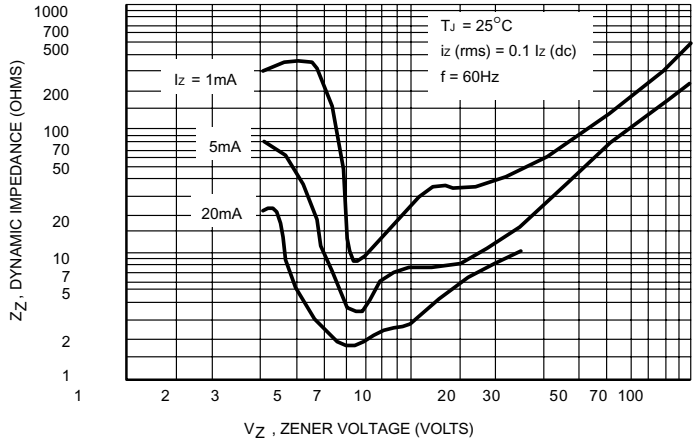

Figure 6. Effect of Zener Voltage on Zener Impedance

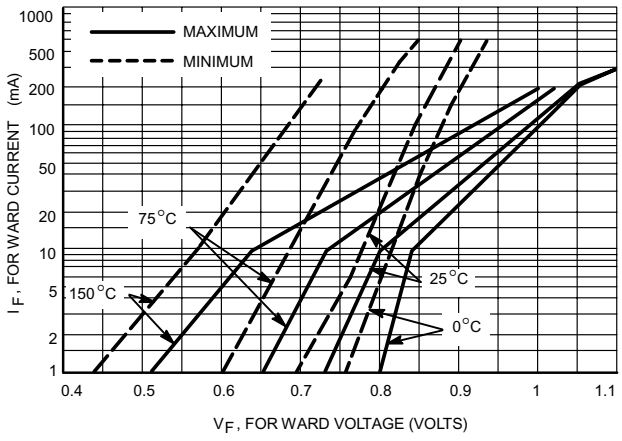

Figure 7. Typical Forward Characteristics

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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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