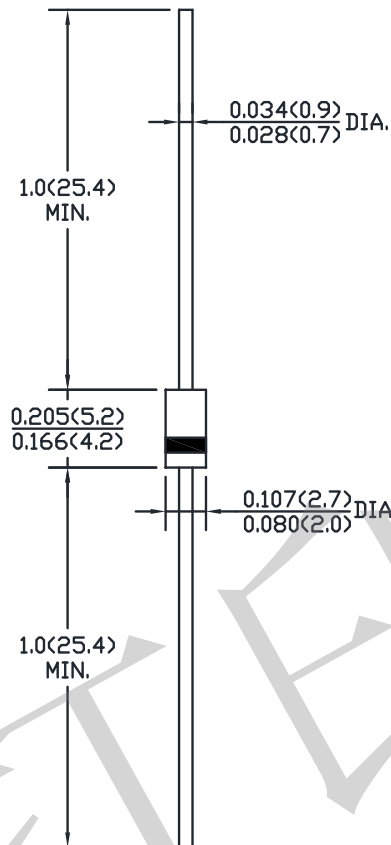


Transient Voltage Suppressor

Breakdown Voltage 3.9 to 30 Volts



CASE: DO-204AL (DO-41)



Dimensions in inches and (millimeters)

Features

- Extensive Voltages selection from 3.9 to 30V
- Silicon 3.0 Watt Zener Diodes
- Hermetically sealed glass body construction
- Withstands surge stresses

Application

- Voltage stabilization
- Regulates voltage over a broad operating current and temperature range
- Flexible axial-lead mounting terminals
- High specified maximum current (I_{ZM}) when adequately heat sunk

Mechanical Data

- **Case:** Void-free transfer molded thermosetting epoxy body meeting UL94V-O
- **Terminals:** Tin-Lead or ROHS Compliant annealed matte-Tin plating readily solderable per MIL-STD-750, Method 2026
- **Marking:** Part number
- **Polarity:** Cathode indicated by band
- **Weight:** 0.3g (Approximately)

Maximum Ratings and Electrical Characteristics @ 25°C unless otherwise specified

Symbol	Conditions	Value	Unit
$P_{M(AV)}$	Steady state power at $T_L \leq 30^\circ\text{C}$ 0.375"(10mm) from body	3.0	W
	Steady state power at $T_A = 25^\circ\text{C}$ when mounted on FR4 PC described for thermal resistance (also see Fig.1)	1.25	W
V_F	Maximum instantaneous forward voltage at 200mA	1.2	V
$R_{\theta JL}$	Thermal resistance junction to lead	40	$^\circ\text{C/W}$
$R_{\theta JA}$	Thermal resistance junction to ambient	100	$^\circ\text{C/W}$
T_J, T_{STG}	Operating and Storage Temperature	-65 to +150	$^\circ\text{C}$

Electrical Characteristics @ 25°C (Unless Otherwise Noted)

Microsemi Type Number (Note1)	Nominal Zener Voltage (Note2)		Maximum Zener Impedance(Note3)			Maximum Reverse Current		Maximum Zener Current	Maximum Surge Current (Note4)
	V _Z @ I _{ZT}		Z _{ZT} @ I _{ZT}	Z _{Zk} @ I _{Zk}		I _R @ V _R			
	V _Z (V)	I _{ZT} (mA)	Z _{ZT} (Ohms)	Z _{Zk} (Ohms)	I _{ZK} (mA)	I _R (μA)	V _R (V)		
3EZ3.9D5	3.9	192	4.5	400	1.00	80	1.0	630	4.40
3EZ4.3D5	4.3	174	4.5	400	1.00	30	1.0	590	4.10
3EZ4.7D5	4.7	160	4.0	500	1.00	20	1.0	550	3.80
3EZ5.1D5	5.1	147	3.5	550	1.00	5.0	1.0	520	3.50
3EZ5.6D5	5.6	134	2.5	600	1.00	5.0	2.0	480	3.30
3EZ6.2D5	6.2	121	1.5	700	1.00	5.0	3.0	435	3.10
3EZ6.8D5	6.8	110	2.0	700	1.00	5.0	4.0	393	2.90
3EZ7.5D5	7.5	100	2.0	700	0.50	5.0	5.0	360	2.66
3EZ8.2D5	8.2	91	2.3	700	0.50	5.0	6.0	330	2.44
3EZ9.1D5	9.1	82	2.5	700	0.50	3.0	7.0	297	2.20
3EZ10D5	10	75	3.5	700	0.25	3.0	7.6	270	2.00
3EZ11D5	11	68	4.0	700	0.25	1.0	8.4	225	1.82
3EZ12D5	12	63	4.5	700	0.25	1.0	9.1	246	1.66
3EZ13D5	13	58	4.5	700	0.25	0.5	9.9	208	1.54
3EZ14D5	14	53	5.0	700	0.25	0.5	10.6	193	1.43
3EZ15D5	15	50	5.5	700	0.25	0.5	11.4	180	1.33
3EZ16D5	16	47	5.5	700	0.25	0.5	12.2	169	1.25
3EZ17D5	17	44	6.0	750	0.25	0.5	13.0	150	1.18
3EZ18D5	18	42	6.0	750	0.25	0.5	13.7	159	1.11
3EZ19D5	19	40	7.0	750	0.25	0.5	14.4	142	1.05
3EZ20D5	20	37	7.0	750	0.25	0.5	15.2	135	1.00
3EZ22D5	22	34	8.0	750	0.25	0.5	16.7	123	0.91
3EZ24D5	24	31	9.0	750	0.25	0.5	18.2	112	0.83
3EZ27D5	27	28	10	750	0.25	0.5	20.6	100	0.74
3EZ28D5	28	27	12	750	0.25	0.5	21.0	96	0.71
3EZ30D5	30	25	16	1000	0.25	0.5	22.5	90	0.67

Note:

1. Suffix 1 indicates $\pm 1\%$ tolerance, suffix 2 indicates $\pm 2\%$ tolerance, suffix 3 indicates $\pm 3\%$ tolerance, suffix 4 indicates $\pm 4\%$ tolerance, suffix 5 indicates $\pm 5\%$ tolerance, suffix 10 indicates $\pm 10\%$ tolerance, no suffix indicates $\pm 20\%$.
2. The V_Z is measured by applying I_Z 40ms $\pm$ 10ms prior to reading. Mounting contacts are located 3/8" to 1/2" from inside edge of mounting clips. Ambient temperature, $T_A = 25^\circ\text{C} (+8^\circ\text{C} / -2^\circ\text{C})$
3. The Zener impedance is derived from 60cycle ac voltage resulting from an ac current having an rms value equal to 10% of the dc Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} .
4. Maximum Surge Current is a non-recurrent maximum peak reverse surge with a pulse width of 8.3ms.

Characteristic Curve

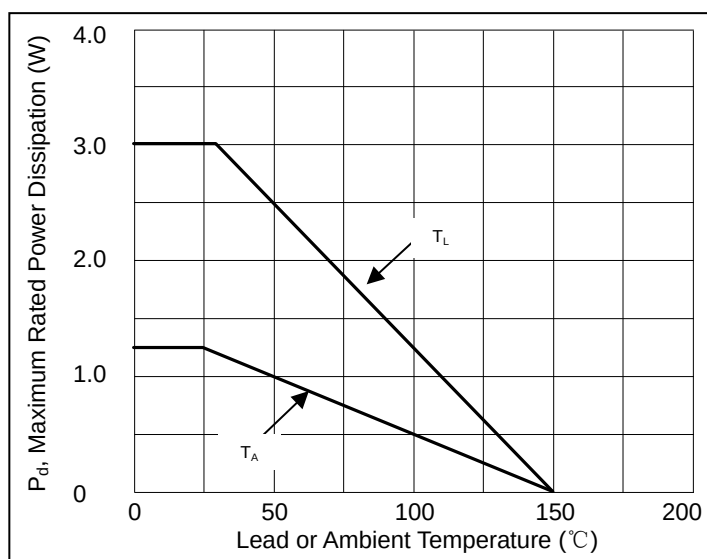


Fig.1 Power Derating Curve