

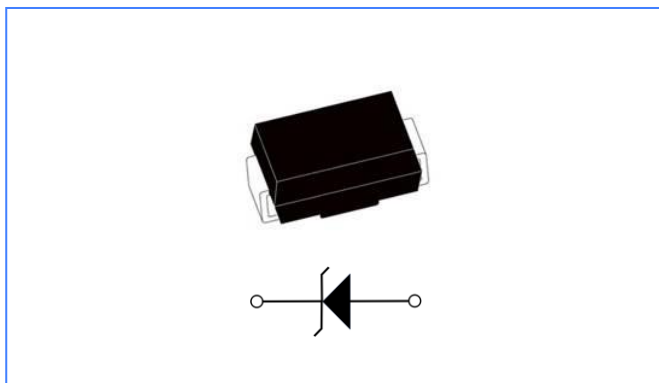
YAZ2D3V3 THRU YAZ2D200

FEATURES

- Total power dissipation: Max. 2W.
- Wide zener reverse voltage range 3.3V to 200V.
- The marking bar indicates the cathode

Mechanical Data

- Case: SMAG
- Terminals: Solderable per MIL-STD-750, Method 2026



Absolute Maximum Ratings And Characteristics (Ta = 25 ° C)

Parameter	Symbol	Value	Unit
Power Dissipation	$P_d (T_L=75^{\circ}\text{C})$	2	W
Zener current	I_z	P_v/V_z	mA
Thermal resistance	$R_{\theta JA}$	75	$^{\circ}\text{C/W}$
	$R_{\theta JL}$	30	$^{\circ}\text{C/W}$
Forward voltage	$V_F(I_F=200\text{mA})$	1.2	V
Operating and Storage Temperature Range	T_j, T_{stg}	-65~+150	$^{\circ}\text{C}$

Electrical Characteristics (TA = 25 °C)

Part Number	Nominal Zener Voltage @ I_T			$I_{ZT}(\text{mA})$	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	Nom (V)	Min (V)	Max (V)		$Z_{zt} \text{ max.}(\Omega) @ I_{zt}$	$Z_{zk} \text{ max.}(\Omega) @ I_{zk}$	$I_{zk}(\text{mA})$	$I_r(\mu\text{A}) @ V_R$	$V_R(\text{V})$	
YAZ2D3V3	3.3	3.14	3.47	145	8	400	1	100	1	548
YAZ2D3V6	3.6	3.42	3.78	139	5	400	1	100	1	502
YAZ2D3V9	3.9	3.71	4.1	128	5	400	1	50	1	464
YAZ2D4V3	4.3	4.09	4.52	116	4.5	400	1	50	1	421
YAZ2D4V7	4.7	4.47	4.94	106	4.5	550	1	10	1	385
YAZ2D5V1	5.1	4.85	5.36	98	3.5	600	1	10	1	354
YAZ2D5V6	5.6	5.32	5.88	89.5	2.5	500	1	10	2	323
YAZ2D6V2	6.2	5.89	6.51	80.5	1.5	700	1	10	3	292
YAZ2D6V8	6.8	6.46	7.14	73.5	2	700	1	10	4	266
YAZ2D7V5	7.5	7.13	7.88	66.5	2	700	0.5	10	5	242
YAZ2D8V2	8.2	7.79	8.61	61	2.3	700	0.5	10	6	220
YAZ2D9V1	9.1	8.65	9.56	55	2.5	700	0.5	10	7	200
YAZ2D10	10	9.5	10.5	50	3.5	700	0.25	10	7.6	182
YAZ2D11	11	10.45	11.55	45.5	4	700	0.25	1	8.4	166
YAZ2D12	12	11.4	12.6	41.5	4.5	700	0.25	1	9.1	152
YAZ2D13	13	12.35	13.65	38.5	5	700	0.25	0.5	9.9	138

YAZ2D14	14	13.3	14.7	35.7	5.5	700	0.25	0.5	10.6	130
YAZ2D15	15	14.25	15.75	33.4	7	700	0.25	0.5	11.4	122
YAZ2D16	16	15.2	16.8	31.2	8	700	0.25	0.5	12.2	114
YAZ2D17	17	16.15	17.85	29.4	9	750	0.25	0.5	13	107
YAZ2D18	18	17.1	18.9	27.8	10	750	0.25	0.5	13.7	100
YAZ2D19	19	18.05	19.95	26.3	11	750	0.25	0.5	14.4	95
YAZ2D20	20	19	21	25	11	750	0.25	0.5	15.2	90
YAZ2D22	22	20.9	23.1	22.8	12	750	0.25	0.5	16.7	82
YAZ2D24	24	22.8	25.2	20.8	13	750	0.25	0.5	18.2	76
YAZ2D27	27	25.65	28.35	18.5	18	750	0.25	0.5	20.6	68
YAZ2D30	30	28.5	31.5	16.6	20	1000	0.25	0.5	22.5	60
YAZ2D33	33	31.35	34.65	15.1	23	1000	0.25	0.5	25.1	55
YAZ2D36	36	34.2	37.8	13.9	25	1000	0.25	0.5	27.4	50
YAZ2D39	39	37.05	40.95	12.8	30	1000	0.25	0.5	29.7	47
YAZ2D43	43	40.85	45.15	11.6	35	1500	0.25	0.5	32.7	43
YAZ2D47	47	44.65	49.35	10.6	40	1500	0.25	0.5	35.8	39
YAZ2D51	51	48.45	53.55	9.8	48	1500	0.25	0.5	38.8	36
YAZ2D56	56	53.2	58.8	9	55	2000	0.25	0.5	42.6	32
YAZ2D62	62	58.9	65.1	8.1	60	2000	0.25	0.5	47.1	29
YAZ2D68	68	64.6	71.4	7.4	75	2000	0.25	0.5	51.7	27
YAZ2D75	75	71.25	78.75	6.7	90	2000	0.25	0.5	56	24
YAZ2D82	82	77.9	86.1	6.1	100	3000	0.25	0.5	62.2	22
YAZ2D91	91	86.45	95.55	5.5	125	3000	0.25	0.5	69.2	20
YAZ2D100	100	95	105	5	175	3000	0.25	0.5	76	18
YAZ2D110	110	104.5	115.5	4.5	250	4000	0.25	0.5	83.6	17
YAZ2D120	120	114	126	4.2	325	4500	0.25	0.5	91.2	15
YAZ2D130	130	123.5	136.5	3.8	400	5000	0.25	0.5	98.8	14
YAZ2D140	140	133	147	3.6	500	5500	0.25	0.5	106.4	13
YAZ2D150	150	142.5	157.5	3.3	575	6000	0.25	0.5	114	12
YAZ2D160	160	152	168	3.1	650	6500	0.25	0.5	121.6	11
YAZ2D170	170	161.5	178.5	2.9	675	7000	0.25	0.5	130.4	11
YAZ2D180	180	171	189	2.8	725	7000	0.25	0.5	136.8	10
YAZ2D190	190	180.5	199.5	2.6	825	8000	0.25	0.5	144.8	10
YAZ2D200	200	190	210	2.5	1900	9990	0.25	0.5	152	9

(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 IZT per method.

Typical Characteristics

Fig.1 Power Temperature Derating Curve

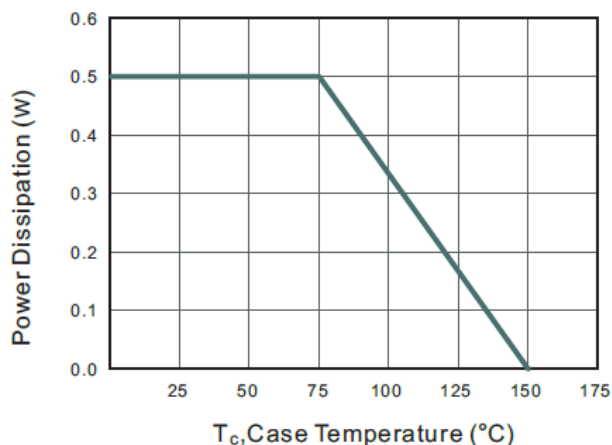


Fig.2 Temperature Coefficients v.s. Zener Voltage

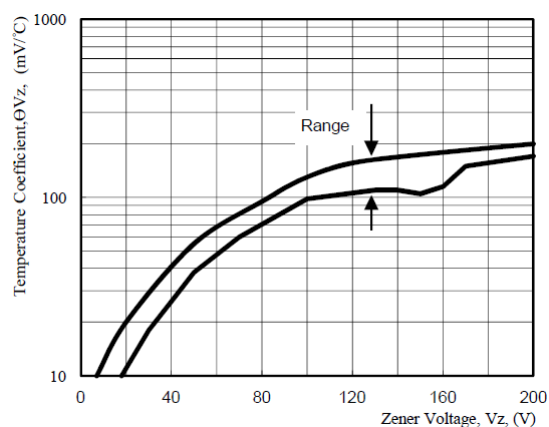


Fig.3 Typical Thermal Resistance v.s. Lead Length

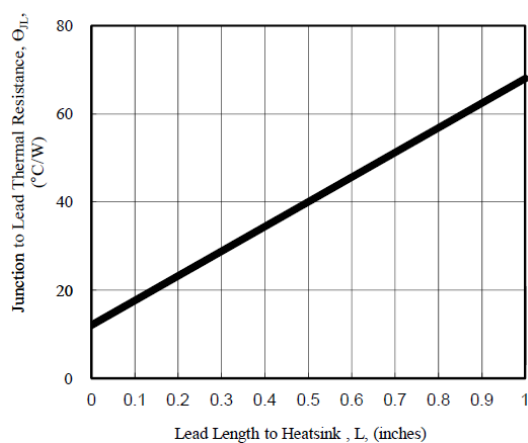


Fig.4 Maximum Surge Power

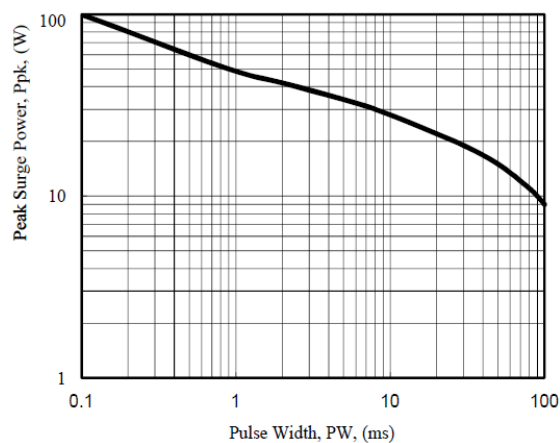
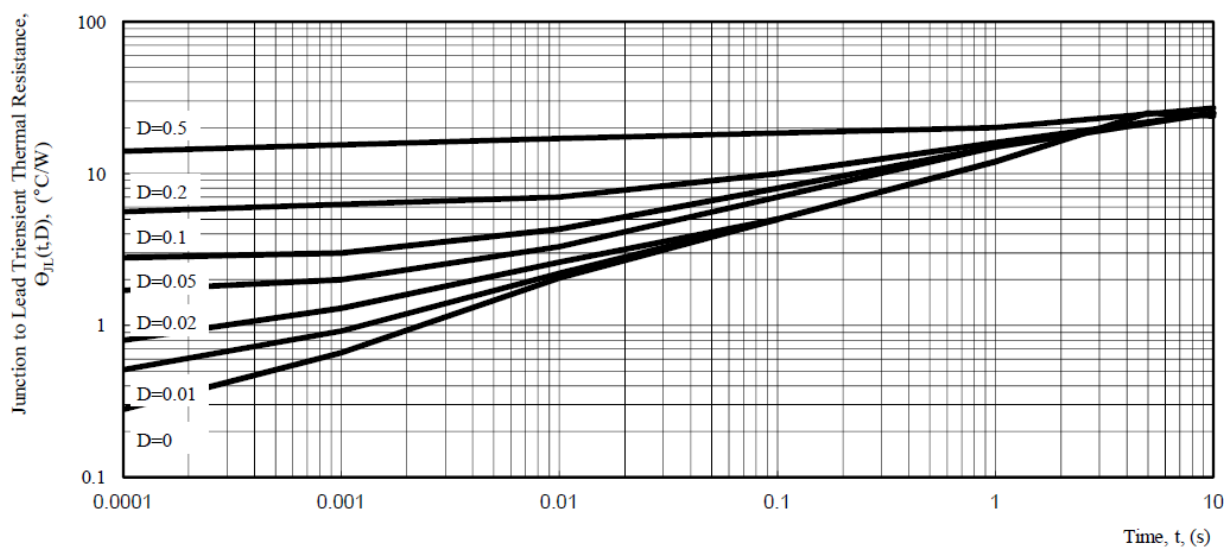
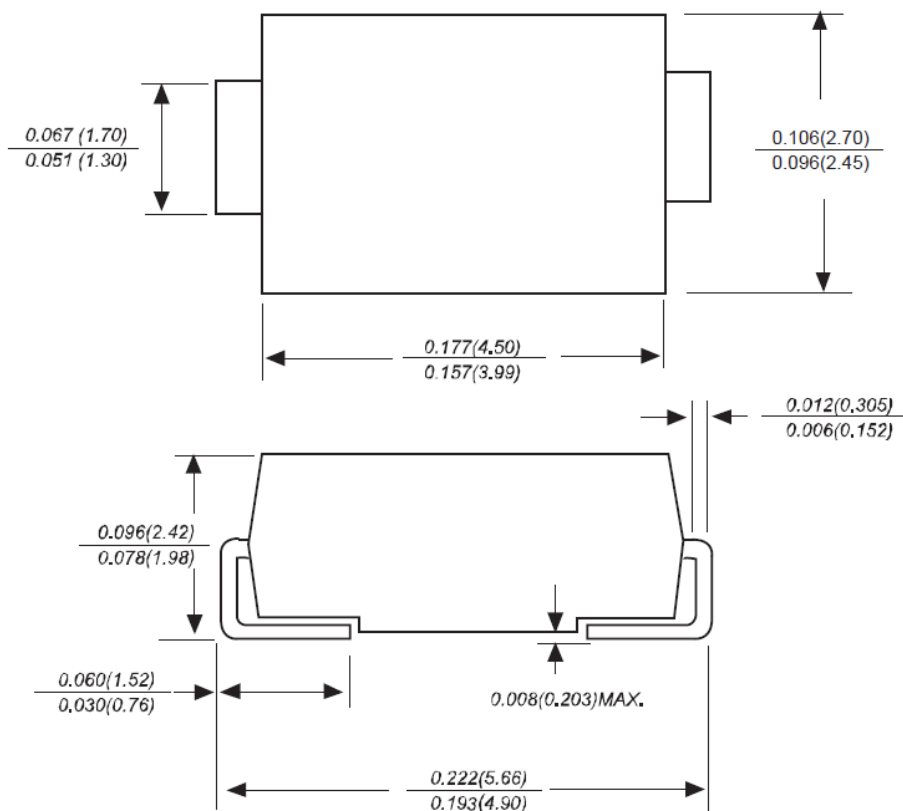


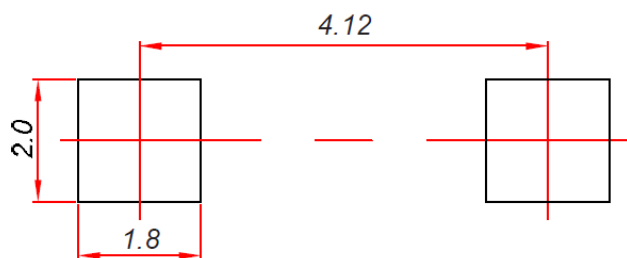
Fig.5 Typical Thermal Response L , Lead Length=3/8inch



Package Outline



Dimensions in inches and (millimeters)



NOTE:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05 \text{ mm}$
3. The pad layout is for reference purposes only