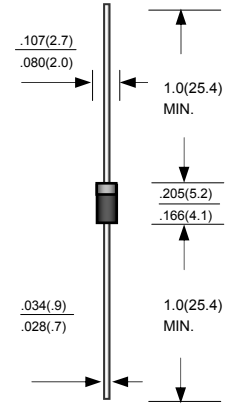


# ZY Series

## SILICON ZENER DIODES



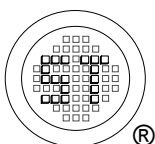
Dimensions in inches and (millimeters)

DO-41 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Power Dissipation	$P_{tot}$	2 <sup>1)</sup>	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 55 to + 150	$^\circ\text{C}$

<sup>1)</sup> Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.



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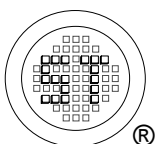
# ZY Series

## Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Type	Zener Voltage Range <sup>1)</sup>			Zener Impedance		Reverse Voltage		Admissible Zener Current at $T_a = 25\text{ }^\circ\text{C}$	Temp. Coeff. of Zener Voltage <sup>2)</sup>
	$V_Z$		at $I_{ZT}$	$Z_{ZT}$	at $I_{ZT}$	$V_R$	at $I_R$		
	Min. (V)	Max. (V)	mA	Max. ( $\Omega$ )	mA	Min. (V)	$\mu\text{A}$	$I_{ZM}$ (mA)	$\alpha V_Z$ at $I_{ZT}$
ZY3.6	3.4	3.8	100	7	100	-	-	440	-7...+2
ZY3.9	3.7	4.1	100	7	100	-	-	410	-7...+2
ZY4.3	4	4.6	100	7	100	-	-	360	-7...+3
ZY4.7	4.4	5	100	7	100	-	-	330	-7...+4
ZY5.1	4.8	5.4	100	5	100	-	-	300	-6...+5
ZY5.6	5.2	6	100	2	100	1.5	1	275	-3...+5
ZY6.2	5.8	6.6	100	2	100	1.5	1	245	-1...+6
ZY6.8	6.4	7.2	100	2	100	2	1	220	0...+7
ZY7.5	7	7.9	100	2	100	2	1	200	0...+7
ZY8.2	7.7	8.7	100	2	100	3.5	1	180	+3...+8
ZY9.1	8.5	9.6	50	4	50	7.4	1	165	+3...+8
ZY10	9.4	10.6	50	4	50	8.2	1	145	+5...+9
ZY11	10.4	11.6	50	7	50	9.2	1	135	+5...+10
ZY12	11.4	12.7	50	7	50	10	1	120	+5...+10
ZY13	12.4	14.1	50	10	50	10.7	1	110	+5...+10
ZY15	13.8	15.6	50	10	50	12	1	98	+5...+10
ZY16	15.3	17.1	25	15	25	13.3	1	90	+6...+11
ZY18	16.8	19.1	25	15	25	14.7	1	80	+6...+11
ZY20	18.8	21.2	25	15	25	16.5	1	72	+6...+11
ZY22	20.8	23.3	25	15	25	18.3	1	66	+6...+11
ZY24	22.8	25.6	25	15	25	20.1	1	60	+6...+11
ZY27	25.1	28.9	25	15	25	22.5	1	53	+6...+11
ZY30	28	32	25	15	25	25.1	1	48	+6...+11
ZY33	31	35	25	15	25	27.8	1	44	+6...+11
ZY36	34	38	10	40	10	30.2	1	40	+6...+11
ZY39	37	41	10	40	10	32.9	1	37	+6...+11
ZY43	40	46	10	45	10	35.6	1	33	+7...+12
ZY47	44	50	10	45	10	39.2	1	30	+7...+12
ZY51	48	54	10	60	10	42.8	1	27	+7...+12
ZY56	52	60	10	60	10	47.3	1	25	+7...+12
ZY62	58	66	10	80	10	51.7	1	21	+8...+13
ZY68	64	72	10	80	10	57.1	1	20	+8...+13
ZY75	70	79	10	100	10	63.2	1	18	+8...+13
ZY82	77	88	10	100	10	68.6	1	16	+8...+13
ZY91	85	96	5	200	5	75.7	1	15	+9...+13
ZY100	94	106	5	200	5	83.7	1	13	+9...+13
ZY110	104	116	5	250	5	92.6	1	12	+9...+13
ZY120	114	127	5	250	5	101.6	1	11	+9...+13
ZY130	124	141	5	300	5	110.5	1	10	+9...+13
ZY150	138	156	5	300	5	123	1	9	+9...+13
ZY160	153	171	5	350	5	136	1	8.5	+9...+13
ZY180	168	191	5	350	5	149	1	8	+9...+13
ZY200	188	212	5	350	5	167	1	7.5	+9...+13

<sup>1)</sup> Tested with pulses  $t_p = 5\text{ ms}$ .

<sup>2)</sup> Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.



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Dated : 21/04/2008 F E

# ZY Series

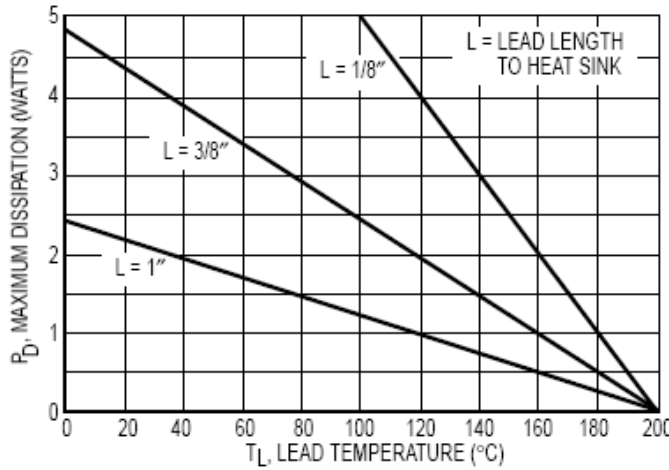


Figure 1. Power Temperature Derating Curve

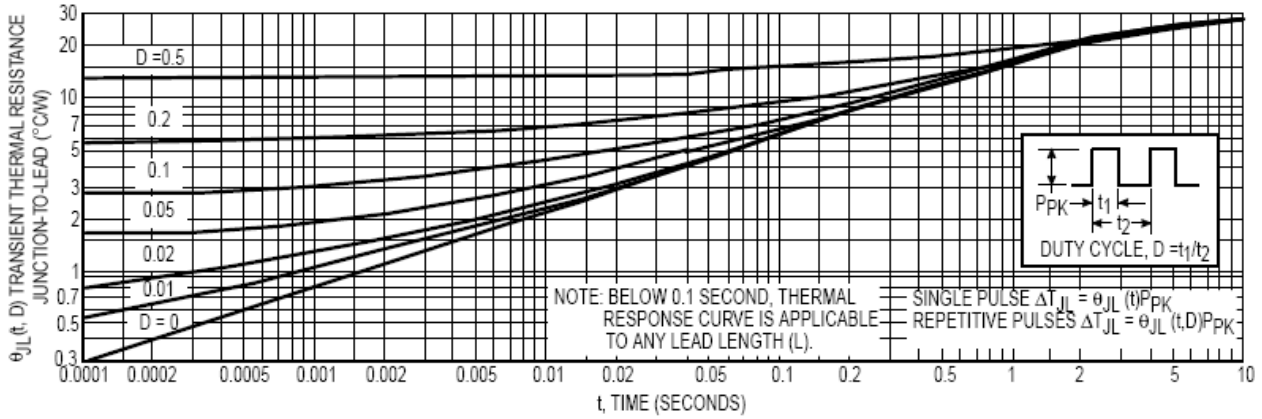


Figure 2. Typical Thermal Response L, Lead Length = 3/8 Inch

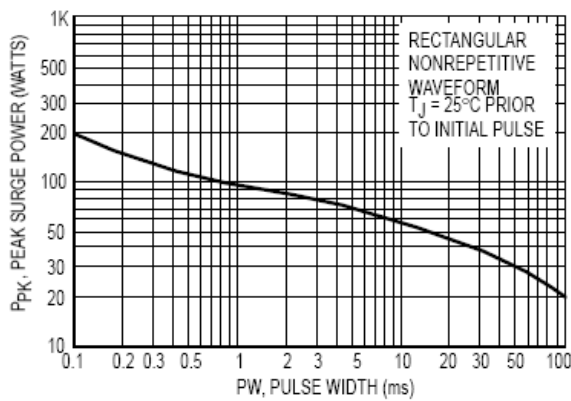


Figure 3. Maximum Surge Power

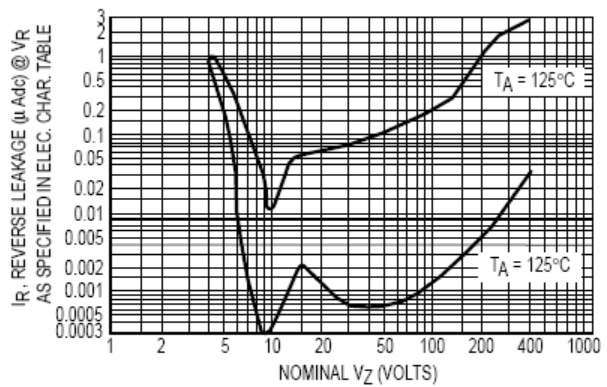
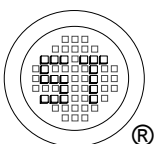


Figure 4. Typical Reverse Leakage



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