

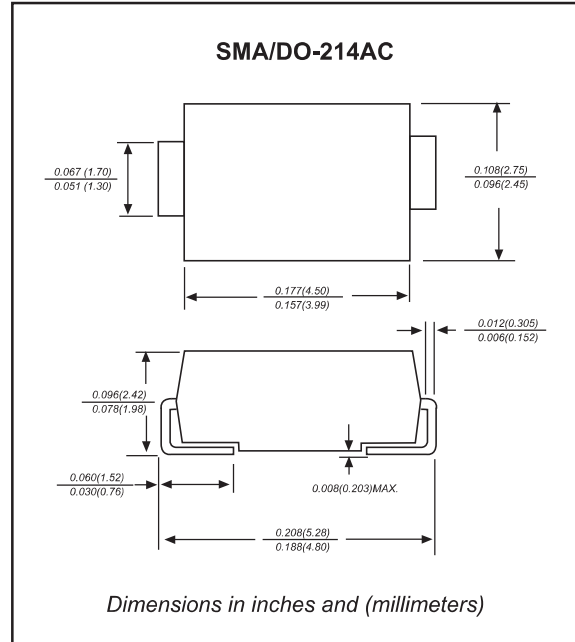
Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Wide zener reverse voltage range 3.3V to 200V.
- Small package size for high density applications.
- Ideally suited for automated assembly processes.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228
- Compliant to Halogen-free

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AC/ SMA
- Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

Package outline



Maximum ratings (at $T_a=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 200 \text{ mA}$	V_F			1.20	V
Power dissipation	$T_L = 50^{\circ}\text{C}$	P_D			3.0	W
Operating junction temperature range		T_J	-55		+150	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-65		+175	$^{\circ}\text{C}$

Electrical characteristics (at $T_a=25^\circ\text{C}$ unless otherwise noted)

TYPE	Marking Code	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		$V_z @ I_{zT}$	I_{zT}	$Z_{zT} @ I_{zT}$	$Z_{zK} @ I_{zK}$	I_{zK}	$I_R @ V_R$	I_{zM}	
		(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
SZ553D	553D	3.3	227.3	10.0	500	1.0	100	1.0	817
SZ553G	553G	3.6	208.3	9.0	500	1.0	100	1.0	749
SZ553J	553J	3.9	192	4.5	400	1.0	80	1.0	630
SZ554D	554D	4.3	174	4.5	400	1.0	30	1.0	590
SZ554H	554H	4.7	160	4.0	500	1.0	20	1.0	550
SZ555B	555B	5.1	147	3.5	550	1.0	5.0	1.0	520
SZ555G	555G	5.6	134	2.5	600	1.0	5.0	2.0	480
SZ556C	556C	6.2	121	1.5	700	1.0	5.0	3.0	435
SZ556I	556I	6.8	110	2.0	700	1.0	50	4.0	393
SZ557F	557F	7.5	100	2.0	700	0.5	50	5.0	360
SZ558C	558C	8.2	91	2.3	700	0.5	50	6.0	330
SZ559B	559B	9.1	82	2.5	700	0.5	50	7.0	297
SZ5510	5510	10	75	3.5	700	0.3	50	7.6	270
SZ5511	5511	11	68	4.0	700	0.25	50	8.4	225
SZ5512	5512	12	63	4.5	700	0.25	1.0	9.1	246
SZ5513	5513	13	58	4.5	700	0.25	0.5	9.1	208
SZ5514	5514	14	53	5.0	700	0.25	0.5	10.6	193
SZ5515	5515	15	50	5.5	700	0.25	0.5	11.4	180
SZ5516	5516	16	47	5.5	700	0.25	0.5	12.2	169
SZ5517	5517	17	44	6.0	750	0.25	0.5	13.0	159
SZ5518	5518	18	42	6.0	750	0.25	0.5	13.7	150
SZ5519	5519	19	40	7.0	750	0.25	0.5	14.4	142
SZ5520	5520	20	37	7.0	750	0.25	0.5	15.2	135
SZ5522	5522	22	34	8.0	750	0.25	0.5	16.7	123
SZ5524	5524	24	31	9.0	750	0.25	0.5	18.2	112
SZ5527	5527	27	28	10	750	0.25	0.5	20.6	100
SZ5528	5528	28	27	12	750	0.25	0.5	21.0	96
SZ5530	5530	30	25	16	1000	0.25	0.5	22.5	90
SZ5533	5533	33	23	20	1000	0.25	0.5	25.1	82
SZ5536	5536	36	21	22	1000	0.25	0.5	27.4	75
SZ5539	5539	39	19	28	1000	0.25	0.5	29.7	69
SZ5543	5543	43	17	33	1500	0.25	0.5	32.7	63
SZ5547	5547	47	16	38	1500	0.25	0.5	35.6	57
SZ5551	5551	51	15	45	1500	0.25	0.5	38.8	53
SZ5556	5556	56	13	50	2000	0.25	0.5	42.6	48
SZ5562	5562	62	12	55	2000	0.25	0.5	47.1	44
SZ5568	5568	68	11	70	2000	0.25	0.5	51.7	40
SZ5575	5575	75	10	85	2000	0.25	0.5	56.0	36
SZ5582	5582	82	9.1	95	3000	0.25	0.5	62.2	33
SZ5591	5591	91	8.2	115	3000	0.25	0.5	69.2	30
SZ55B0	55B0	100	7.5	160	3000	0.25	0.5	76.0	27
SZ55B1	55B1	110	6.8	225	4000	0.25	0.5	83.6	25
SZ55B2	55B2	120	6.3	300	4500	0.25	0.5	91.2	22
SZ55B3	55B3	130	5.8	375	5000	0.25	0.5	98.8	21
SZ55B4	55B4	140	5.3	475	5000	0.25	0.5	106.4	19
SZ55B5	55B5	150	5.0	550	6000	0.25	0.5	114.0	18
SZ55B6	55B6	160	4.7	625	6500	0.25	0.5	121.6	17
SZ55B7	55B7	170	4.4	650	7000	0.25	0.5	130.4	16
SZ55B8	55B8	180	4.2	700	7000	0.25	0.5	136.8	15
SZ55B9	55B9	190	4.0	800	8000	0.25	0.5	144.8	14
SZ55D0	55D0	200	3.7	875	8000	0.25	0.5	152.0	13

Note:

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5.0\%$, altered the fourth number of type from "5" for $\pm 5.0\%$ tolerance to be "0" for $\pm 10\%$ tolerance.

Rating and characteristic curves

FIG.1 Typical Thermal Response L

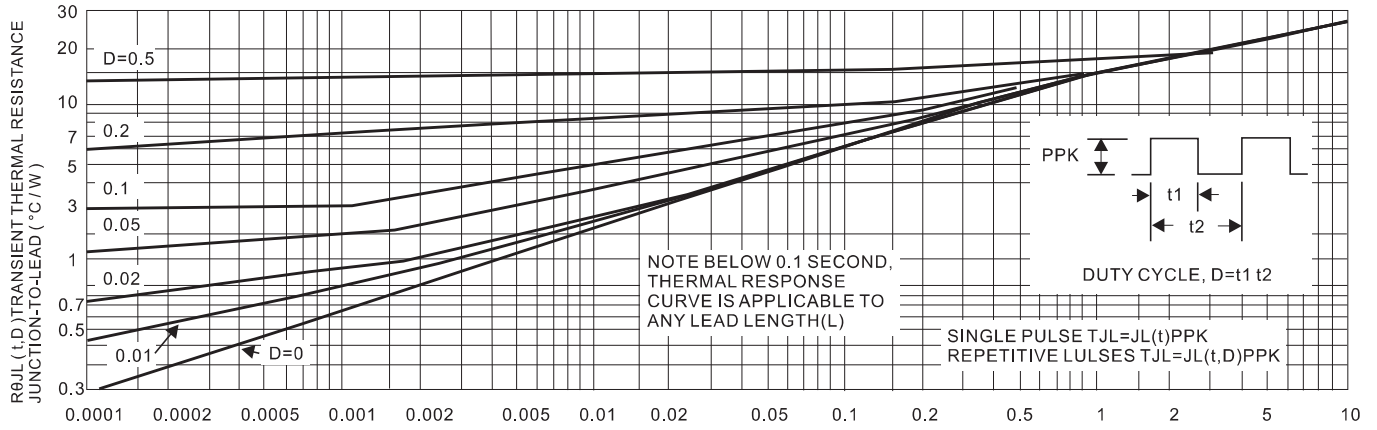


FIG. 2 Maximum Surge Power

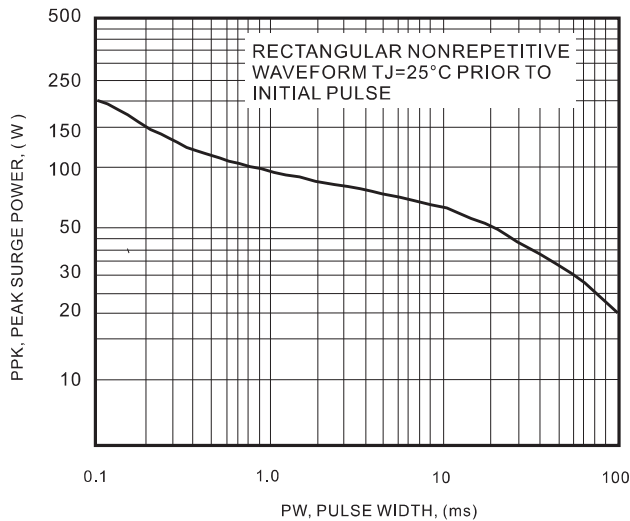


FIG. 3 Maximum Surge Power

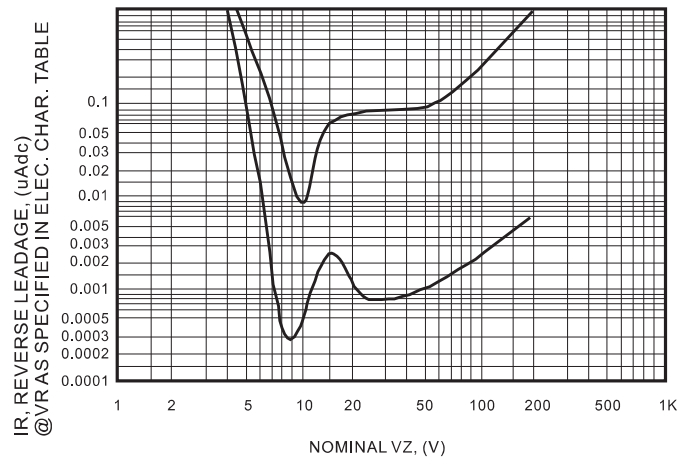


FIG.4 Units To 12 Volts

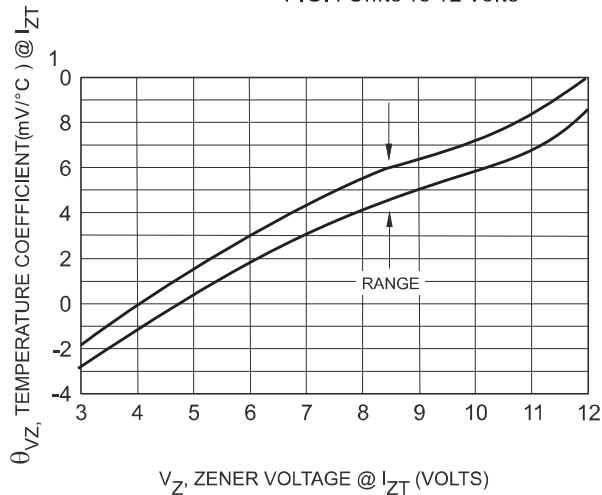
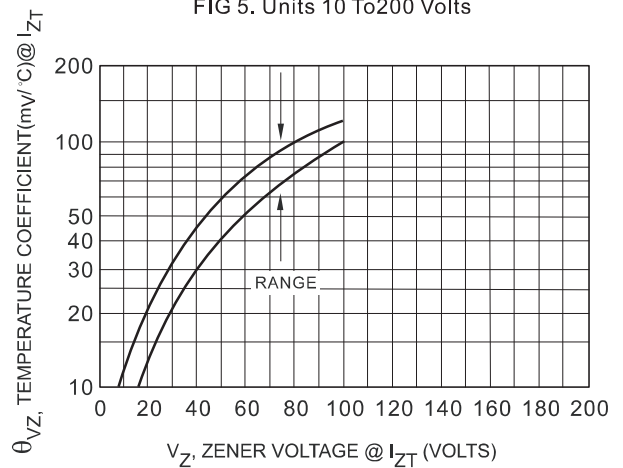


FIG 5. Units 10 To 200 Volts



Rating and characteristic curves

FIG.6 To 10 Volts

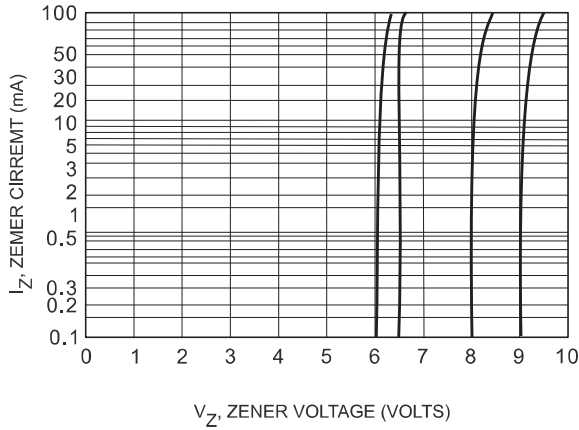


FIG.7 $V_Z = 12$ Thru 82 Volts

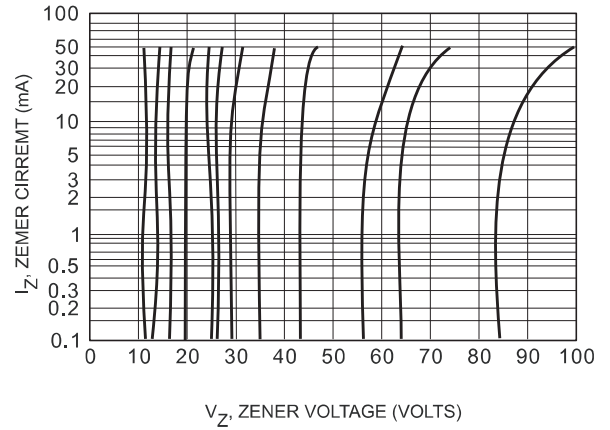


FIG. 8 Typical Thermal Resistance

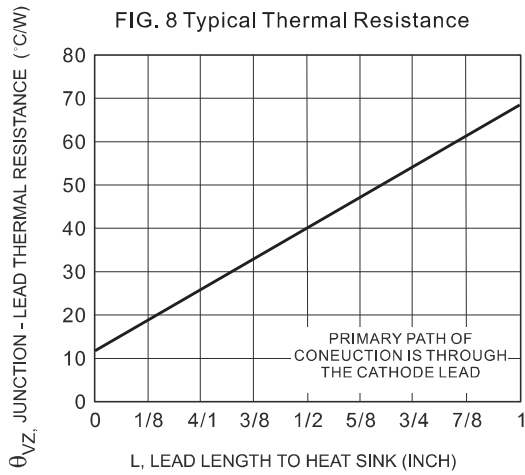
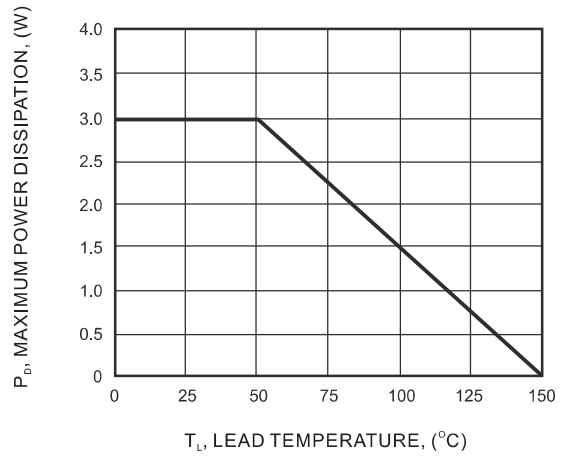




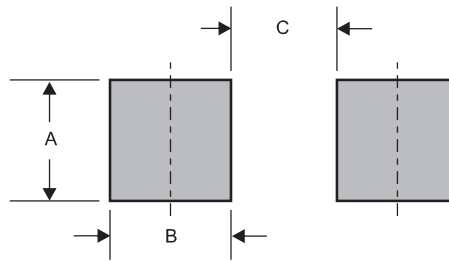
FIG.9 STEADY STATE POWER DERATING



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMA	0.110 (2.80)	0.063 (1.60)	0.087 (2.20)