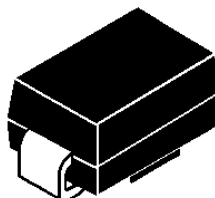




3W SURFACE MOUNT ZENER DIODES

Features

- Low Zener impedance.
- High reliability chips.
- Halogen free and RoHS compliant
- Lead-free finish



Mechanical Characteristics

- CASE: SMA Molded plastic package.
- Mounting Position: Any
- Polarity: Cathode by color band
- Terminal: Solder plated

SMA

Maximum Ratings and Characteristics @ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Units
Power Dissipation	P_D	3	W
Thermal Resistance Junction To Ambient Air	$R_{\theta JA}$	100	°C/W
Thermal Resistance Junction To Leads	$R_{\theta JL}$	25	°C/W
Maximum Forward voltage $I_F=200mA$	V_F	1.2	V
Storage Temperature Range	T_{STG}	-55 to 150	°C
Operating Junction Temperature Range	T_J	-55 to 150	°C

SZ55 Series

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Part Number	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	VZ @IZT		ZZT@IZT	ZZT@IZK	IZK	IR@VR		IZM
	V	mA	Ω	Ω	m A	μA	V	mA
SZ553J	3.9	192	4.5	400	1	80	1	630
SZ554D	4.3	174	4.5	400	1	30	1	590
SZ554H	4.7	160	4	500	1	20	1	550
SZ555B	5.1	147	3.5	550	1	5	1	520
SZ555G	5.6	134	2.5	600	1	5	2	480
SZ556C	6.2	121	1.5	700	1	5	3	435
SZ556I	6.8	110	2	700	1	50	4	393
SZ557F	7.5	100	2	700	0.5	50	5	360
SZ558C	8.2	91	2.3	700	0.5	50	6	330
SZ559B	9.1	82	2.5	700	0.5	50	7	297
SZ5510	10	75	3.5	700	0.25	50	7.6	270
SZ5511	11	68	4	700	0.25	50	8.4	225
SZ5512	12	63	4.5	700	0.25	1	9.1	246
SZ5513	13	58	4.5	700	0.25	0.5	9.9	208
SZ5514	14	53	5	700	0.25	0.5	10.6	193
SZ5515	15	50	5.5	700	0.25	0.5	11.4	180
SZ5516	16	47	5.5	700	0.25	0.5	12.2	169
SZ5517	17	44	6	750	0.25	0.5	13	159
SZ5518	18	42	6	750	0.25	0.5	13.7	150
SZ5519	19	40	7	750	0.25	0.5	14.4	142
SZ5520	20	37	7	750	0.25	0.5	15.2	135
SZ5522	22	34	8	750	0.25	0.5	16.7	123
SZ5524	24	31	9	750	0.25	0.5	18.2	112
SZ5527	27	28	10	750	0.25	0.5	20.6	100
SZ5528	28	27	12	750	0.25	0.5	21	96
SZ5530	30	25	16	1000	0.25	0.5	22.5	90
SZ5533	33	23	20	1000	0.25	0.5	25.1	82
SZ5536	36	21	22	1000	0.25	0.5	27.4	75
SZ5539	39	19	28	1000	0.25	0.5	29.7	69
SZ5543	43	17	33	1500	0.25	0.5	32.7	63
SZ5547	47	16	38	1500	0.25	0.5	35.6	57
SZ5551	51	15	45	1500	0.25	0.5	38.8	53
SZ5556	56	13	50	2000	0.25	0.5	42.6	48

SZ55 Series

Part Number	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	VZ @IZT		ZZT@IZT	ZZT@IZK	IZK	IR@VR		IZM
	V	mA	Ω	Ω	m A	μ A	V	mA
SZ5562	62	12	55	2000	0.25	0.5	47.1	44
SZ5568	68	11	70	2000	0.25	0.5	51.7	40
SZ5575	75	10	85	2000	0.25	0.5	56	36
SZ5582	82	9.1	95	3000	0.25	0.5	62.2	33
SZ5591	91	8.2	115	3000	0.25	0.5	69.2	30
SZ55B0	100	7.5	160	3000	0.25	0.5	76	27
SZ55B1	110	6.8	225	4000	0.25	0.5	83.6	25
SZ55B2	120	6.3	300	4500	0.25	0.5	91.2	22
SZ55B3	130	5.8	375	5000	0.25	0.5	98.8	21
SZ55B4	140	5.3	475	5000	0.25	0.5	106.4	19
SZ55B5	150	5	550	6000	0.25	0.5	114	18
SZ55B6	160	4.7	625	6500	0.25	0.5	121.6	17
SZ55B7	170	4.4	650	7000	0.25	0.5	130.4	16
SZ55B8	180	4.2	700	7000	0.25	0.5	136.8	15
SZ55B9	190	4	800	8000	0.25	0.5	144.8	14
SZ55D0	200	3.7	875	8000	0.25	0.5	152	13

Typical Characteristics

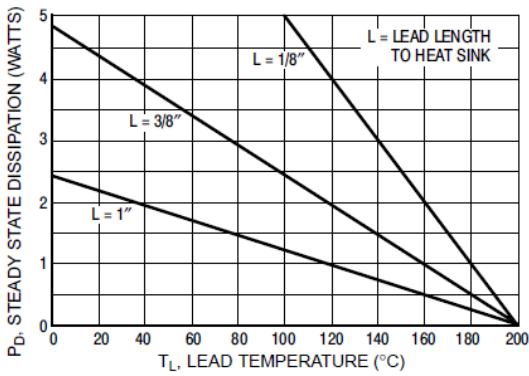


Figure 1. Power Temperature Derating Curve

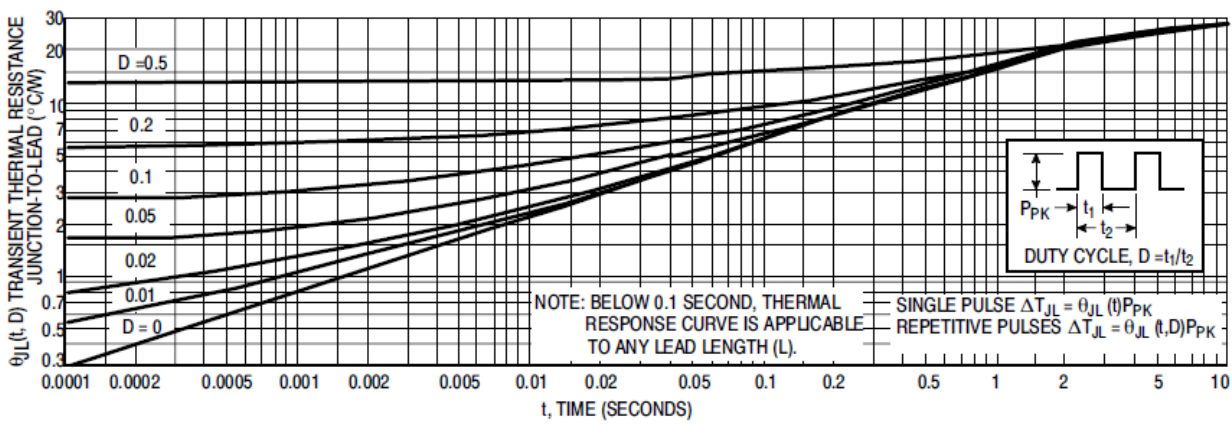


Figure 2. Typical Thermal Response L, Lead Length = 3/8 Inch

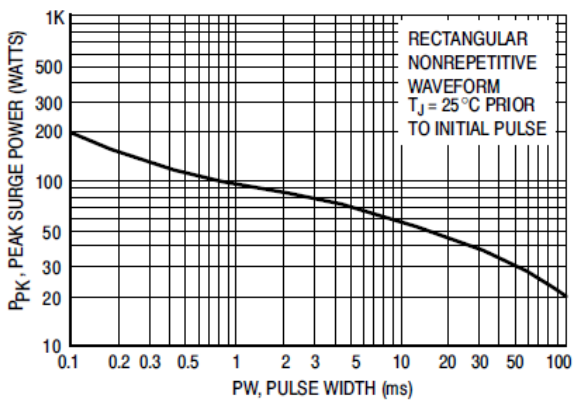


Figure 3. Maximum Surge Power

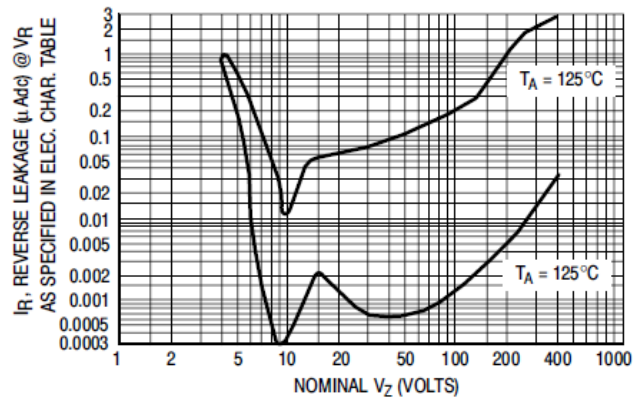
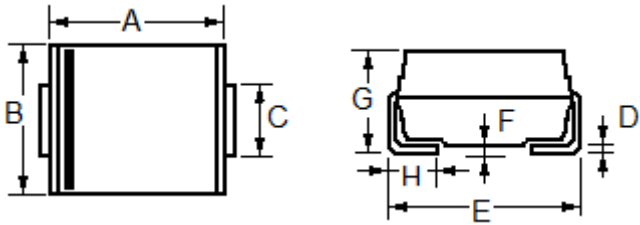


Figure 4. Typical Reverse Leakage

Package Outline Dimensions

DO-214AC (SMA)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	3.99	4.50	0.157	0.177
B	2.54	2.79	0.100	0.110
C	1.25	1.65	0.049	0.065
D	0.152	0.305	0.006	0.012
E	4.93	5.28	0.194	0.208
F	----	0.203	----	0.008
G	1.98	2.29	0.078	0.090
H	0.76	1.52	0.030	0.060