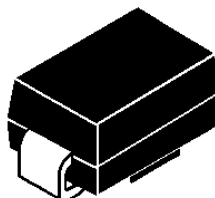




2W SURFACE MOUNT ZENER DIODES

Features

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

**SMA**

Mechanical Characteristics

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

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

Parameter	Symbol	Value	Units
Power Dissipation	P_D	2	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

SZ45 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	ZZK@IZK	IZK	IR@VR		IZM
	V	mA	Ω	Ω	m A	μA	V	mA
SZ452H	2.7	80	10	400	1	100	1	660
SZ453A	3	160	8	400	1	100	1	600
SZ453D	3.3	145	8	400	1	80	1	545
SZ453G	3.6	139	5	400	1	80	1	504
SZ453J	3.9	128	5	400	1	30	1	468
SZ454D	4.3	116	4.5	400	1	20	1	434
SZ454H	4.7	106	4.5	550	1	5	1	386
SZ455B	5.1	98	3.5	600	1	5	1	358
SZ455G	5.6	89.5	2.5	500	1	5	2	324
SZ456C	6.2	80.5	1.5	700	1	5	3	292
SZ456I	6.8	73.5	2	700	1	50	4	266
SZ456F	7.5	66.5	2	700	0.5	50	5	242
SZ458C	8.2	61	2.3	700	0.5	50	6	220
SZ459B	9.1	55	2.5	700	0.5	50	7	200
SZ4510	10	50	3.5	700	0.25	0.5	7.6	182
SZ4511	11	45.5	4	700	0.25	0.5	8.4	166
SZ4512	12	41.5	4.5	700	0.25	0.5	9.1	152
SZ4513	13	38.5	5	700	0.25	0.5	9.9	138
SZ4514	14	35.7	5.5	700	0.25	0.5	10.6	130
SZ4515	15	33.4	7	700	0.25	0.5	11.4	122
SZ4516	16	31.2	8	700	0.25	0.5	12.2	114
SZ4517	17	29.4	9	750	0.25	0.5	13	107
SZ4518	18	27.8	10	750	0.25	0.5	13.7	100
SZ4519	19	26.3	11	750	0.25	0.5	14.4	95
SZ4520	20	25	11	750	0.25	0.5	15.2	90
SZ4522	22	22.8	12	750	0.25	0.5	16.7	82
SZ4524	24	20.8	13	750	0.25	0.5	18.2	76
SZ4527	27	18.5	18	750	0.25	0.5	20.6	68
SZ4530	30	16.6	20	1000	0.25	0.5	22.5	60
SZ4533	33	15.1	23	1000	0.25	0.5	25.1	55
SZ4536	36	13.9	25	1000	0.25	0.5	27.4	50
SZ4539	39	12.8	30	1000	0.25	0.5	29.7	47
SZ4543	43	11.6	35	1500	0.25	0.5	32.7	43

SZ45 Series

Part Number	Nominal Zener voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	VZ @IZT		ZZT@IZT	ZZK@IZK	IZK	IR@VR		IZM
	V	mA	Ω	Ω	m A	μ A	V	mA
SZ4547	47	10.6	40	1500	0.25	0.5	35.8	39
SZ4551	51	9.8	48	1500	0.25	0.5	38.8	36
SZ4556	56	9	55	2000	0.25	0.5	42.6	32
SZ4562	62	8.1	60	2000	0.25	0.5	47.1	29
SZ4568	68	7.4	75	2000	0.25	0.5	51.7	27
SZ4575	75	6.7	90	2000	0.25	0.5	56	24
SZ4582	82	6.1	100	3000	0.25	0.5	62.2	22
SZ4591	91	5.5	125	3000	0.25	0.5	69.2	20
SZ45B0	100	5	175	3000	0.25	0.5	76	18
SZ45B1	110	4.5	250	4000	0.25	0.5	83.6	17
SZ45B2	120	4.2	325	4500	0.25	0.5	91.2	15
SZ45B3	130	3.8	400	5000	0.25	0.5	98.8	14
SZ45B4	140	3.6	500	5500	0.25	0.5	106.4	13
SZ45B5	150	3.3	575	6000	0.25	0.5	114	12
SZ45B6	160	3.1	650	6500	0.25	0.5	121.6	11
SZ45B7	170	2.9	675	7000	0.25	0.5	130.4	11
SZ45B8	180	2.8	725	7000	0.25	0.5	136.8	10
SZ45B9	190	2.6	825	8000	0.25	0.5	144.8	10
SZ45D0	200	2.5	900	8000	0.25	0.5	152	9
SZ45D2	220	2	2000	8500	0.25	0.5	167	8
SZ45D7	270	1.6	2200	8500	0.25	0.5	205	6.7
SZ45E0	300	1.5	2200	9000	0.25	0.5	225	5.9
SZ45E3	330	1.4	2300	9000	0.25	0.5	250	5.4

Typical Characteristics

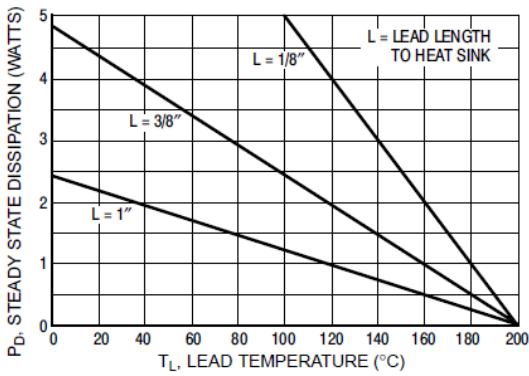


Figure 1. Power Temperature Derating Curve

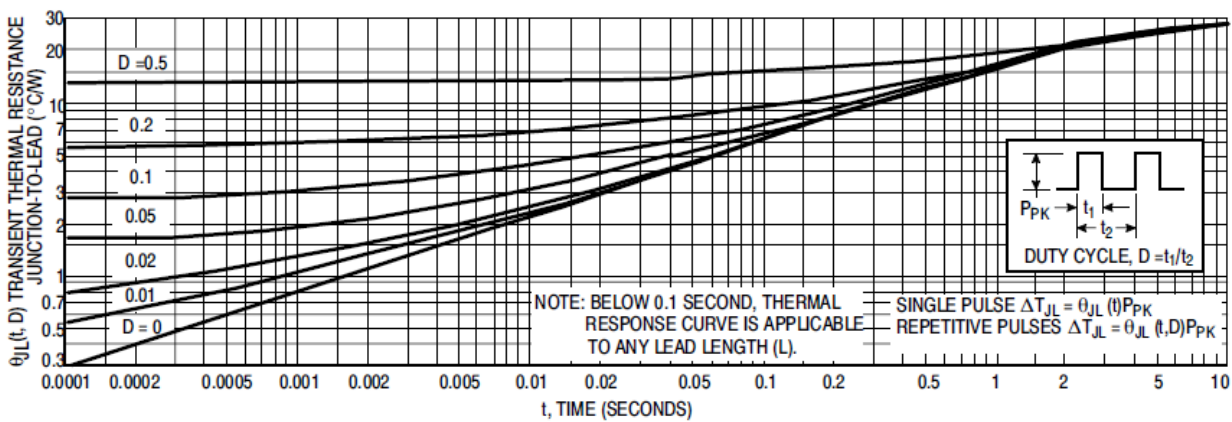


Figure 2. Typical Thermal Response L, Lead Length = 3/8 Inch

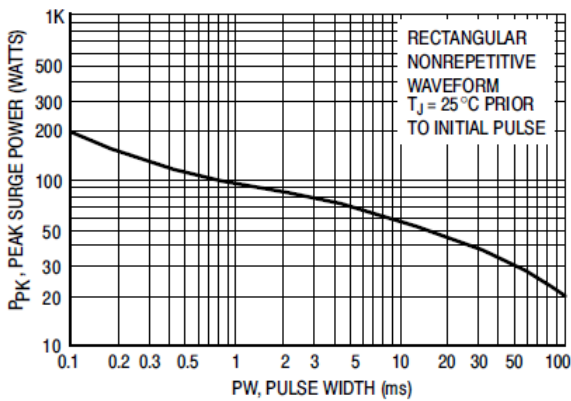


Figure 3. Maximum Surge Power

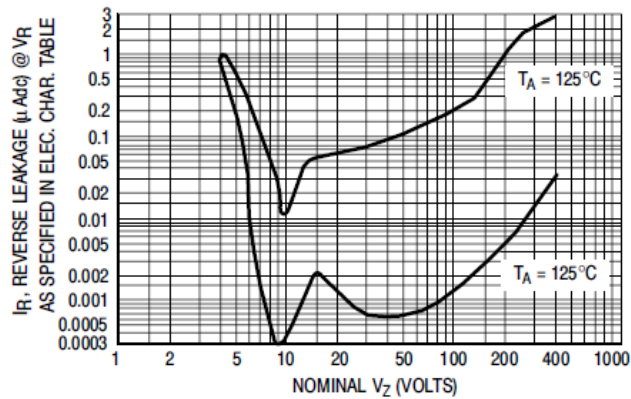
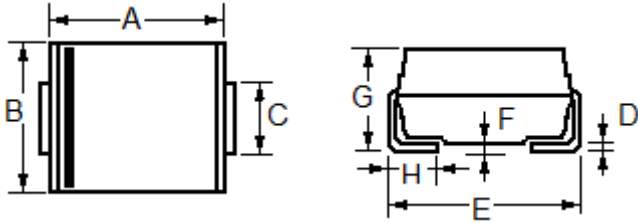


Figure 4. Typical Reverse Leakage

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