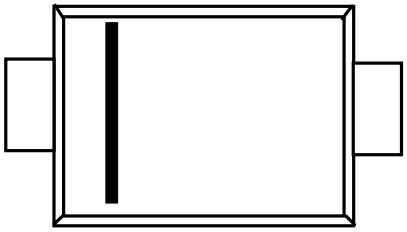
伯恩半导体 BORN SEMICONDUCTOR

1SMA47 Series

Zener Diode

»Features

- Low Zener impedance.
- High reliability
- Halogen free and RoHS compliant
- Lead-free finish
- Epoxy : UL94V-O rate flame retardant



SMA(DO-214AC)

»General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SMA Plastic Package

» Maximum Ratings @T_A=25℃ unless otherwise noted

Parameter	Symbol	Value	Units
Power Dissipation	P_D	1	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 IF=200mA	VF	1.2	V
Storage Temperature Range	T_{STG}	-55 to 150	°C
Operating Junction Temperature Range	T_J	-55 to 150	°C

»Electrical Characteristics @T_A=25℃ unless otherwise noted

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
1SMA4728A	3.3	76	10	400	1	100	1	276
1SMA4729A	3.6	69	10	400	1	100	1	252
1SMA4730A	3.9	64	9	400	1	50	1	234
1SMA4731A	4.3	58	9	400	1	10	1	217
1SMA4732A	4.7	53	8	500	1	10	1	193
1SMA4733A	5.1	49	7	550	1	10	1	178
1SMA4734A	5.6	45	5	600	1	10	2	162
1SMA4735A	6.2	41	2	700	1	10	3	146
1SMA4736A	6.8	37	3.5	700	1	10	4	133
1SMA4737A	7.5	34	4	700	0.5	10	5	121
1SMA4738A	8.2	31	4.5	700	0.5	10	6	110
1SMA4739A	9.1	28	5	700	0.5	10	7	100
1SMA4740A	10	25	7	700	0.25	10	7.6	91
1SMA4741A	11	23	8	700	0.25	5	8.4	83
1SMA4742A	12	21	9	700	0.25	5	9.1	76
1SMA4743A	13	19	10	700	0.25	5	9.9	69
1SMA4744A	15	17	14	700	0.25	5	11.4	61
1SMA4745A	16	15.5	16	700	0.25	5	12.2	57
1SMA4746A	18	14	20	750	0.25	5	13.7	50
1SMA4747A	20	12.5	22	750	0.25	5	15.2	45
1SMA4748A	22	11.5	25	750	0.25	5	16.7	41
1SMA4749A	24	10.5	28	750	0.25	5	18.2	38
1SMA4750A	27	9.5	35	750	0.25	5	20.6	34
1SMA4751A	30	8.5	40	1000	0.25	5	22.8	30
1SMA4752A	33	7.5	45	1000	0.25	5	25.1	27
1SMA4753A	36	7	50	1000	0.25	5	27.4	25
1SMA4754A	39	6.5	60	1000	0.25	5	29.7	23
1SMA4755A	43	6	70	1500	0.25	5	32.7	22
1SMA4756A	47	5.5	80	1500	0.25	5	35.8	19
1SMA4757A	51	5	95	1500	0.25	5	38.8	18
1SMA4758A	56	4.5	110	2000	0.25	5	42.6	16
1SMA4759A	62	4	125	2000	0.25	5	47.1	14

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
1SMA4760A	68	3.7	150	2000	0.25	5	51.7	13
1SMA4761A	75	3.3	175	2000	0.25	5	56	12
1SMA4762A	82	3	200	3000	0.25	5	62.2	11
1SMA4763A	91	2.8	250	3000	0.25	5	69.2	10
1SMA4764A	100	2.5	350	3000	0.25	5	76	9

»Typical Performance Characteristics ((TJ = 25 °C, unless otherwise noted))

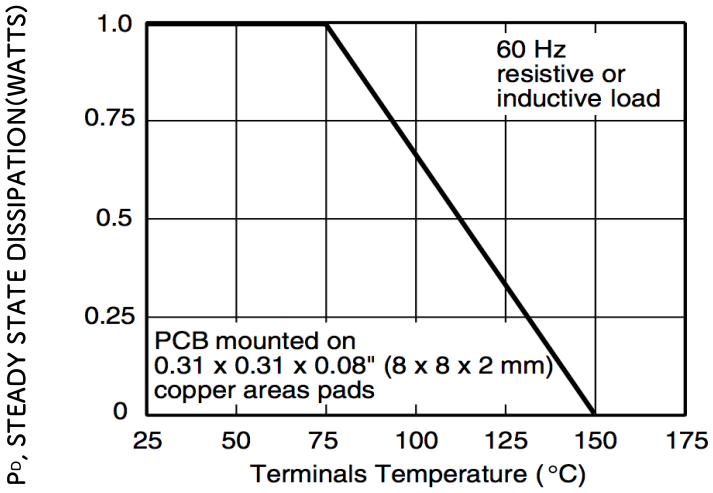


Figure 1 Power Temperature Derating Curve

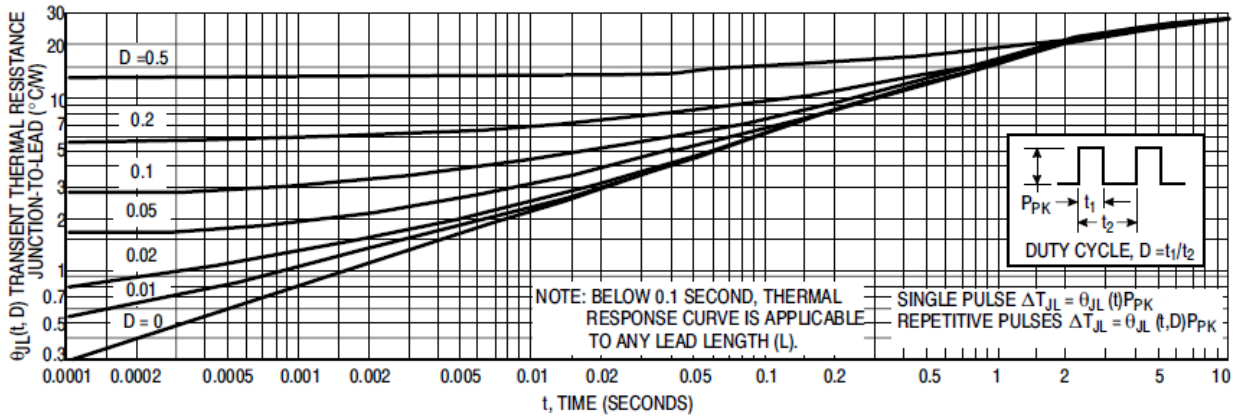


Figure 2. Typical Thermal Response L, Lead Length = 3/8 Inch

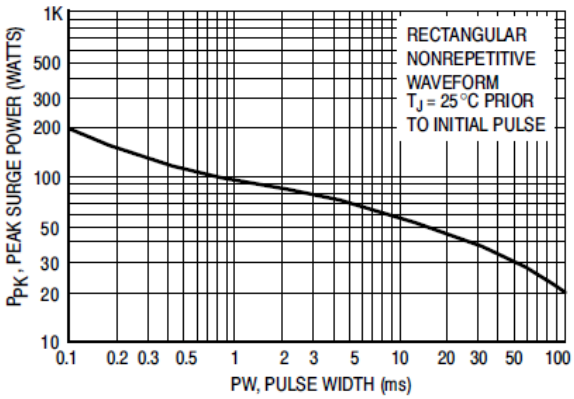
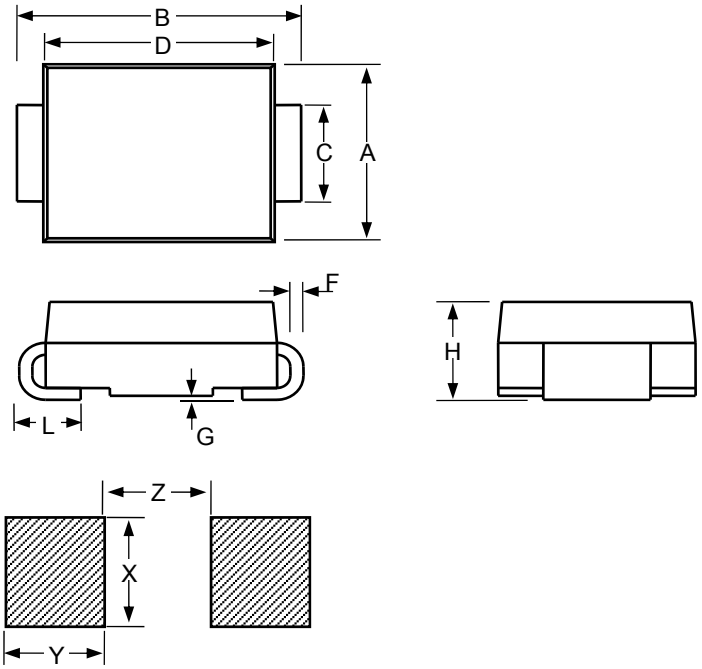


Figure 3. Maximum Surge Power

»Package Information

SMA



SMA						
Dimension	Inches			Millimeters		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.1		0.11	2.54		2.8
B	0.194		0.223	4.93		5.66
C	0.051		0.067	1.3		1.7
D	0.157		0.177	3.99		4.5
F	0.006		0.012	0.152		0.305
G	-		0.008	-		0.203
H	0.078		0.095	1.98		2.42
L	0.03		0.06	0.76		1.52
X		0.085			2.16	
Y		0.07			1.78	
Z		0.079			2	