

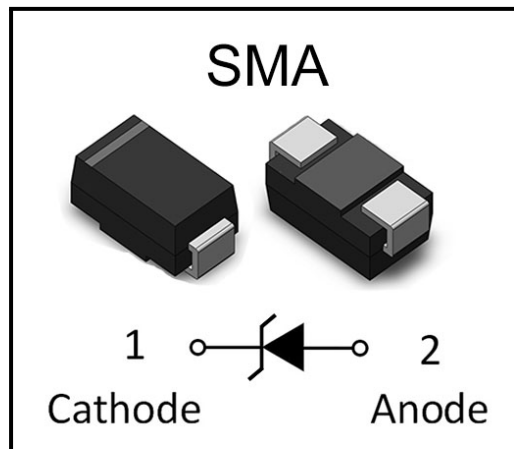
1SMA47xxA

Zener Diode

Features

- Low Zener impedance
- High reliability
- Halogen free and RoHS compliant
- Lead-free finish
- Epoxy: UL94V-0 rate flame retardant

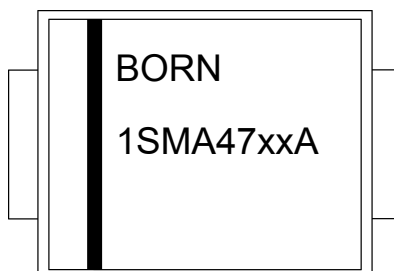
Package



General Description

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

Marking



Ordering information

Order code	Package	Marking	Base qty	Deliverymode
1SMA47xxA	SMA	1SMA47xxA	5K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Unit
P _D	Power Dissipation	1	W
V _F	Forward Voltage at I _F =200mA	1.2	V
T _J	Operating Junction Temperature Range	-55 to +150	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C
R _{θJA}	Thermal Resistance Junction To Ambient Air	100	°C/W
R _{θJL}	Thermal Resistance Junction To Leads	25	°C/W

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Revision: 2022-Jan-1-A



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Zener Diode

Electrical Characteristics ($T_A=25^\circ\text{C}$, unless otherwise noted)

Part Number	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)
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
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

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Electrical Characteristics ($T_A=25^\circ\text{C}$, unless otherwise noted)

Part Number	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)
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 ($T_J=25^\circ\text{C}$, unless otherwise noted)

Figure 1: Power Derating Curve

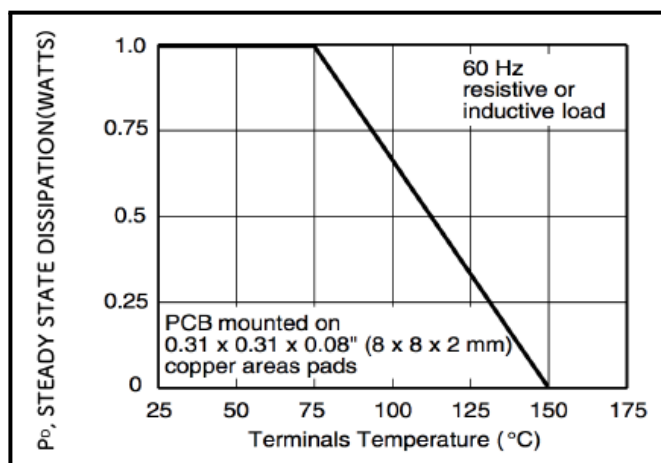


Figure 2: Maximum Surge Power

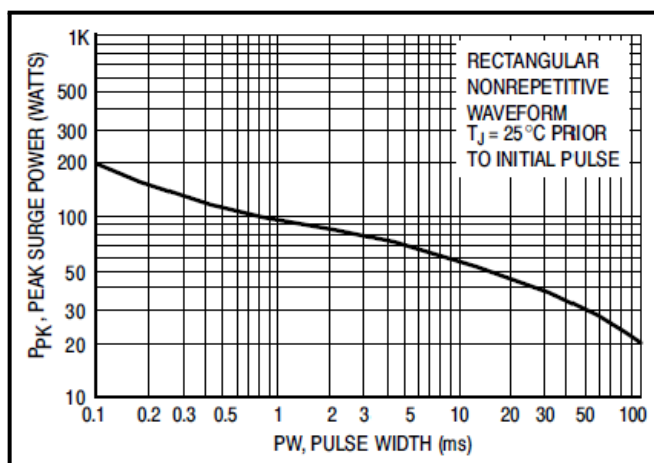
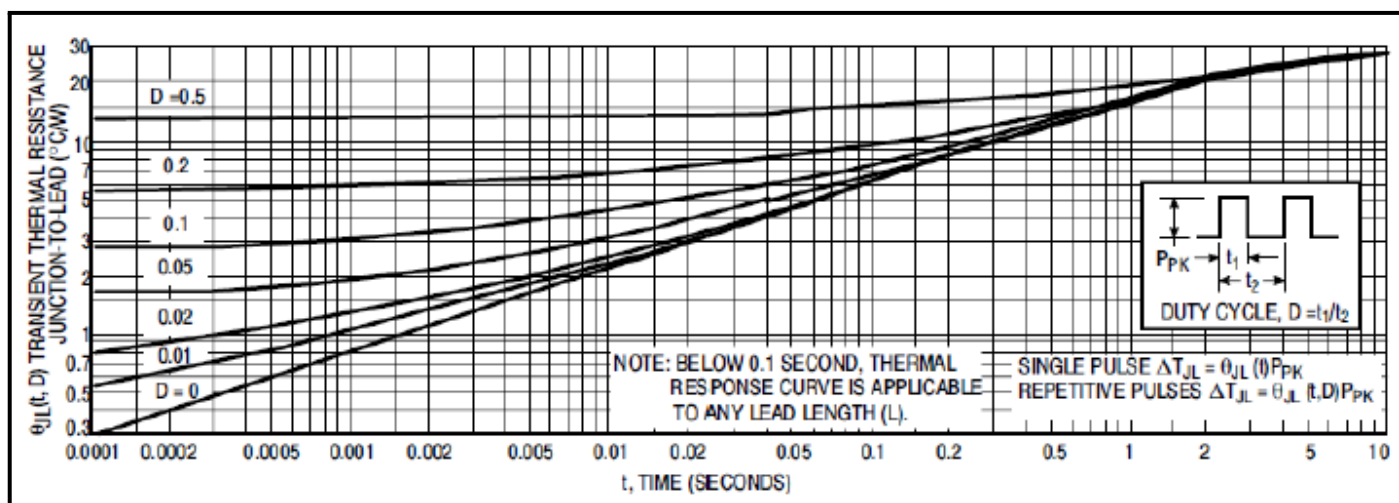


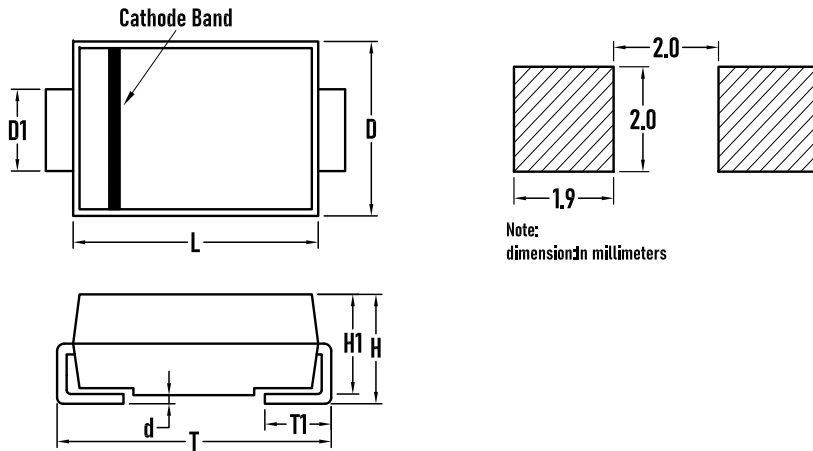
Figure 3: Typical Thermal Response L, Lead Length=3/8 Inch



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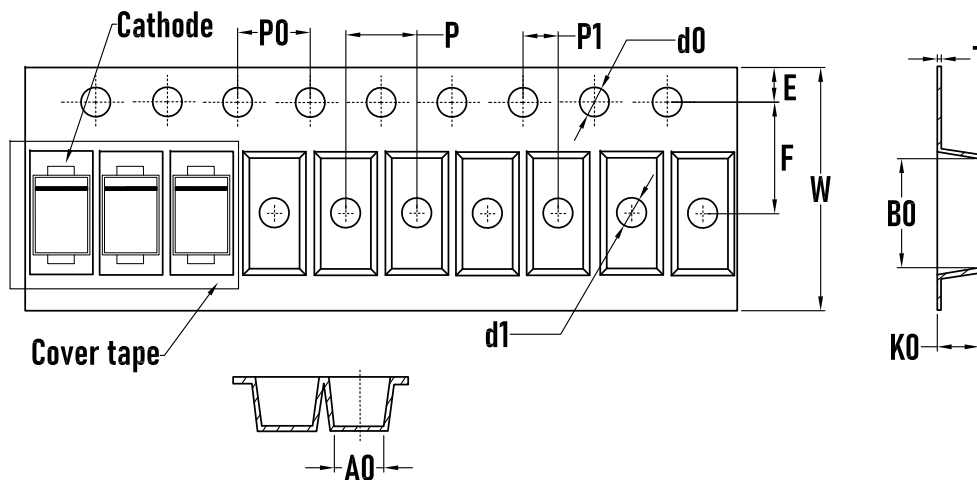
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Outline Drawing - SMA



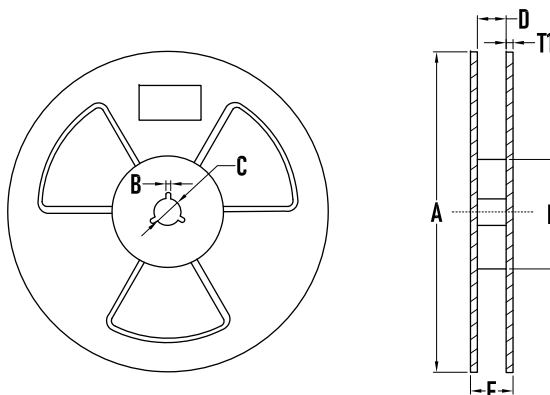
SYMBOL	MILLIMETER		Inches	
	MIN.	MAX.	MIN.	MAX.
D	2.5	2.9	0.098	0.114
D1	1.2	1.8	0.047	0.071
T	4.8	5.3	0.189	0.209
T1	0.8	1.5	0.031	0.059
d	—	0.2	—	0.008
H1	1.8	2.2	0.071	0.087
H	1.9	2.5	0.075	0.098
L	3.9	4.6	0.154	0.181

Packaging Tape - SMA



SYMBOL	MILLIMETER
A0	2.70
B0	5.10±0.1
d0	1.50±0.1
d1	1.50±0.1
E	1.75±0.1
F	5.50±0.1
K0	2.40±0.1
P	4.00±0.1
P0	4.00±0.1
P1	2.00±0.1
W	12.00±0.1
T	0.2±0.02

Packaging Reel



SYMBOL	MILLIMETER
A	323±2
B	3.0±0.2
C	15.0±0.5
D	13±2
E	73±2
T1	2.2±0.2
Quantity	5000PCS

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