



**THE DATASHEET OF  
1SMA4744TR**





Technical Data  
Data Sheet N0195, Rev. B

*Green Products*

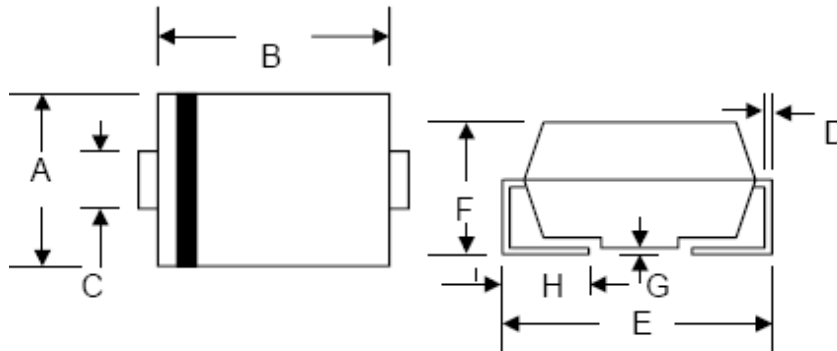
**Features:**

- Glass Passivated Die Construction
- 1.0W Power Dissipation
- 11 –100V Nominal Zener Voltage
- 5% Standard Vz Tolerance
- Low Inductance
- Typical IR Less Than 5.0μA Above 11V
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

**Mechanical Data:**

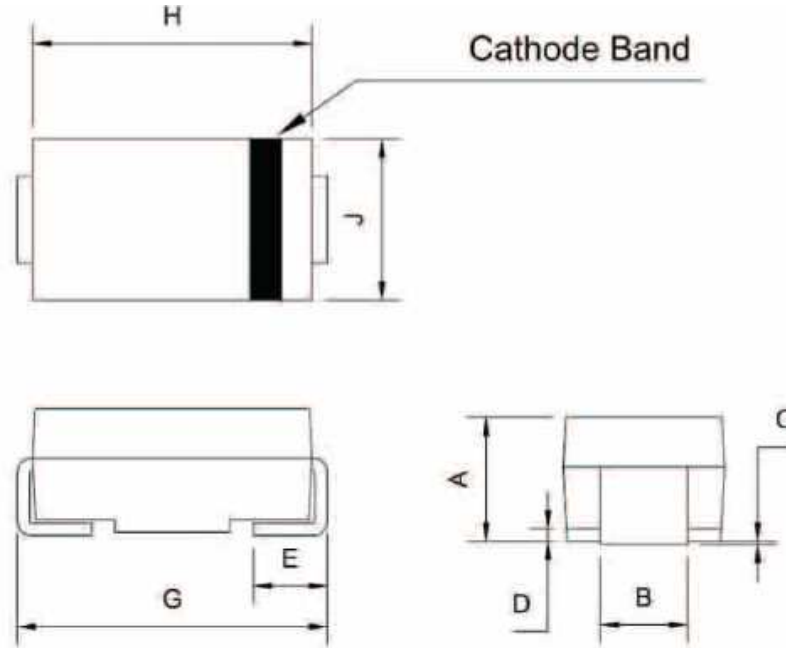
- Case: JEDEC DO-214AC Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable
- per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Device Code (See Table Next Page)
- Weight: 0.064 grams (approx.)

**Mechanical Dimensions: In mm/Inches**



Dim.	SMA/DO-214AC			
	Min.	Max.	Min.	Max.
A	2.18	2.90	0.086	0.114
B	3.99	4.60	0.157	0.181
C	1.29	1.70	0.508	0.067
D	0.152	0.305	0.006	0.012
E	4.70	5.31	0.185	0.209
F	1.70	2.50	0.067	0.098
G	0.051	0.203	0.002	0.008
H	0.76	1.55	0.030	0.610
	In mm		In inch	

**OPTION1**



SMA/DO-214AC				
Dim.	Min.	Max.	Min.	Max.
A	1.70	2.31	0.067	0.091
B	1.29	1.70	0.051	0.067
C	0.051	0.203	0.002	0.008
E	0.76	1.52	0.030	0.060
G	4.70	5.31	0.185	0.209
H	4.00	4.60	0.157	0.181
J	2.18	2.79	0.086	0.110
	In mm		In inch	

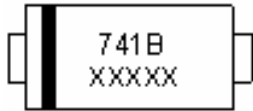
**OPTION2 (CR)**

**SMA**



**Marking Diagram:**

Where XXXXX is YYWWL



741B = Part Name  
YY = Year  
WW = Week  
L = Lot Number

1SMA4741

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information**

Device	Package	Shipping
1SMA4741-1SMA4764	SMA (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings** @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1) Derate Above 25°C	P <sub>d</sub>	1.0 8.0	W mW/°C
Forward Voltage @I <sub>F</sub> = 200mA	V <sub>F</sub>	1.2	V
Non repetitive peak surge power dissipation Tp = 100 μs sq.pulse, Tj = 25°C prior to surge	P <sub>ZSM</sub>	600	W
Thermal Resistance Junction to Ambient (Note 1)	R <sub>θJA</sub>	120	°C /W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

Note:1.Valid provided that device terminals are kept at ambient temperature



**Electrical Characteristics** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

Type Number (Note 1)	Device Marking Code	Nominal Zener Voltage (Note 2)	Test Current	Maximum Zener Impedance (Note 3)			Leakage Current		Max. Surge Current 8.3ms		
				Vz @ Izt	Izt	Zzt @ Izt	Zzk @ Izk	Izk		I <sub>r</sub>	@ Vr
				(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)		( $\mu\text{A}$ )	(V)
1SMA4741	741B	11	23	8.0	700	0.25	5.0	8.4	414		
1SMA4742	742B	12	21	9.0	700	0.25	5.0	9.1	380		
1SMA4743	743B	13	19	10	700	0.25	5.0	9.9	344		
1SMA4744	744B	15	17	14	700	0.25	5.0	11.4	305		
1SMA4745	745B	16	15.5	16	700	0.25	5.0	12.2	285		
1SMA4746	746B	18	14	20	750	0.25	5.0	13.7	250		
1SMA4747	747B	20	12.5	22	750	0.25	5.0	15.2	225		
1SMA4748	748B	22	11.5	23	750	0.25	5.0	16.7	205		
1SMA4749	749B	24	10.5	25	750	0.25	5.0	18.2	190		
1SMA4750	750B	27	9.5	35	750	0.25	5.0	20.6	170		
1SMA4751	751B	30	8.5	40	1000	0.25	5.0	22.8	150		
1SMA4752	752B	33	7.5	45	1000	0.25	5.0	25.1	135		
1SMA4753	753B	36	7.0	50	1000	0.25	5.0	27.4	125		
1SMA4754	754B	39	6.5	60	1000	0.25	5.0	29.7	115		
1SMA4755	755B	43	6.0	70	1500	0.25	5.0	32.7	110		
1SMA4756	756B	47	5.5	80	1500	0.25	5.0	35.8	95		
1SMA4757	757B	51	5.0	95	1500	0.25	5.0	38.8	90		
1SMA4758	758B	56	4.5	110	2000	0.25	5.0	42.6	80		
1SMA4759	759B	62	4.0	125	2000	0.25	5.0	47.1	70		
1SMA4760	760B	68	3.7	150	2000	0.25	5.0	51.7	65		
1SMA4761	761B	75	3.3	175	2000	0.25	5.0	56.0	60		
1SMA4762	762B	82	3.0	200	3000	0.25	5.0	62.2	55		
1SMA4763	763B	91	2.8	250	3000	0.25	5.0	69.2	50		
1SMA4764	764B	100	2.5	350	3000	0.25	5.0	76.0	45		

- Note: 1. Type numbers listed have standard tolerance on the nominal Zener voltage of  $\pm 5\%$ .  
 2. Measured under thermal equilibrium and DC (Izt) test conditions.  
 3. The Zener impedance is derived from the 60Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (Izt or Izk) is superimposed on Izt or Izk. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.



### ORDERING INFORMATION

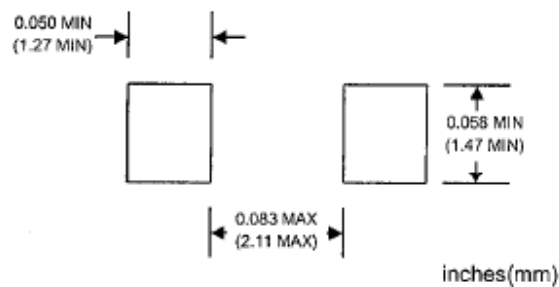
Product No.♦	Package Type	Shipping Quantity
1SMA47xx-T1	SMA	1800/Tape & Reel
<b>1SMA47xx-T3</b>	SMA	5000/Tape & Reel

Products listed in **bold** are Sensitron **Preferred** devices.

\*T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

### RECOMMENDED FOOTPRINT





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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management