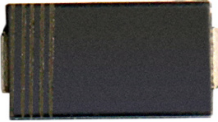


### Features:



- For surface mounted application (flat handing surface for Accurate placement)
- High surge current rating
- Higher voltages available
- Available on tape and reel

### Mechanical Data:

Case : JEDEC DO-214AC molded plastic body over passivated chip  
 Terminals : Solderable per MIL-STD-750, method 2026  
 Polarity : Indicated by cathode band  
 Temperature for soldering : 260°C for 10 seconds (Max.)  
 Voltage Range : 3.3 to 100 Volts  
 Power Dissipation : 1.0 Watts

For surface mount application with flame retardant epoxy Meeting UL 94V-0

### Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	Value	Unit
Peak Reverse Voltage	$I_S$	See Table	
Max. Forward Voltage (Note 1)	$V_F$	1.2	Volts
Steady State Power Dissipation at (Note 2, 3)	$P(AV)$	1	Watts
Operating Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$		

### Notes:

1. Forward Current @ 200 mA.
2. Mounted on 4mm<sup>2</sup> copper pads to each terminal
3. Lead temperature at 100°C or less. Derate linearly above 100°C to zero power at 150°C

Part Number	Zener Voltage	Test Current $I_{zt}$	Max. Dynamic Impedance $Z_{zt}@I_{zt}$	Max. Reverse Current $I_r@V_r$	Test Voltage $V_r$	Max. Regulator Current $I_{zm}$ $T_a=50^\circ\text{C}$	Max. Knee Impedance $Z_{zk}@I_{zk}$	Test Current $I_{zk}$	Max. Surge Current $I_s$
	Volts	mA	$\Omega$	$\mu\text{A}$	Volts	mA	$\Omega$	mA	mA
SMAJ4737A	7.5	34	4	10	5	121	700	0.5	605
SMAJ4740A	10	25	7	10	7.6	91	700	0.25	454
SMAJ4742A	12	21	9	5	9.1	76	700	0.25	380

Part Number	Zener Voltage	Test Current Izt	Max. Dynamic Impedance Zzt@Izt	Max. Reverse Current Ir@Vr	Test Voltage Vr	Max. Regulator Current Izm Ta=50°C	Max. Knee Impedance Zzk@Izk	Test Current Izk	Max. Surge Current Is
	Volts	mA	Ω	μA	Volts	mA	Ω	mA	mA
SMAJ4744A	15	17	14	5	11.4	61	700	0.25	304
SMAJ4745A	16	15.5	16	5	12.2	57	700	0.25	285
SMAJ4746A	18	14	20	5	13.7	50	750	0.25	250
SMAJ4747A	20	12.5	22	5	15.2	45	750	0.25	225
SMAJ4748A	22	11.5	23	5	16.7	41	750	0.25	205
SMAJ4749A	24	10.5	25	5	18.2	38	750	0.25	190
SMAJ4750A	27	9.5	35	5	20.6	34	750	0.25	170
SMAJ4751A	30	8.5	40	5	22.8	30	1000	0.25	150
SMAJ4752A	33	7.5	45	5	25.1	27	1000	0.25	135
SMAJ4756A	47	5.5	80	5	35.8	19	1500	0.25	95
SMAJ4758A	56	4.5	110	5	42.6	16	2000	0.25	80

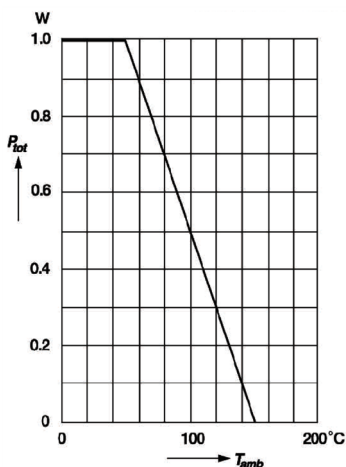
**Notes:**

1. 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 DC zener current (Izt or Izk) is superimposed on Izk. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and eliminate unstable units.
2. The reverse surge current is measured at 25°C ambient using a 1/2 square wave or equivalent sine wave pulse 1/20 second duration superimposed on Izt.
3. Voltage measurements to be performed 90 seconds after application of DC current.
4. Standard voltage tolerance is 10 %, Suffix A ± 5 %.

## Ratings and Characteristic Curves

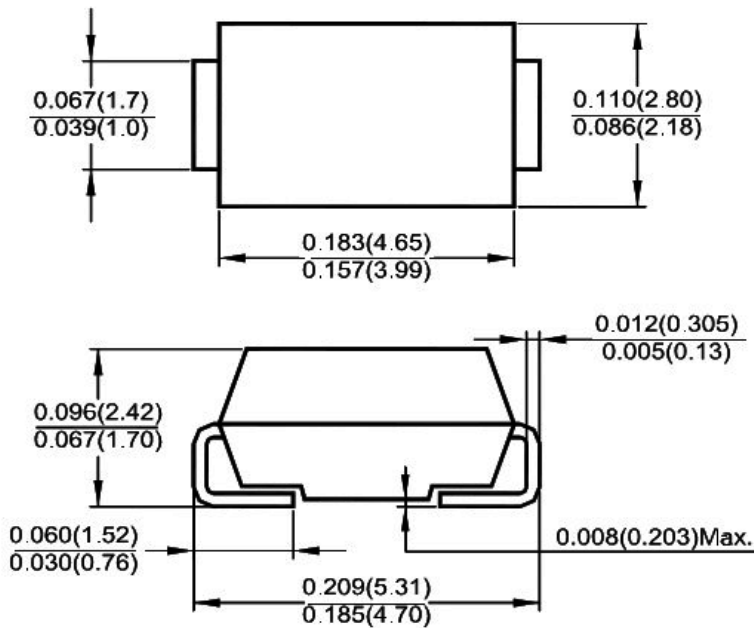
### Admissible power dissipation versus ambient temperature

Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.



## Dimensions:

### SMA (DO-214AC)



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Silicon Zener Diodes	SMAJ4737A
	SMAJ4740A
	SMAJ4742A
	SMAJ4744A
	SMAJ4745A
	SMAJ4746A
	SMAJ4747A
	SMAJ4748A
	SMAJ4749A
	SMAJ4750A
	SMAJ4751A
	SMAJ4752A
	SMAJ4756A
	SMAJ4758A

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