

Features

- AEC-Q101 Qualified
- V_Z Tolerance: $\pm 5\%$
- For Surface Mount Applications
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -65°C to $+150^{\circ}\text{C}$
- Storage Temperature Range: -65°C to $+150^{\circ}\text{C}$
- Thermal Resistance : 50°C/W Junction to Lead
- Thermal Resistance : 83°C/W Junction to Ambient

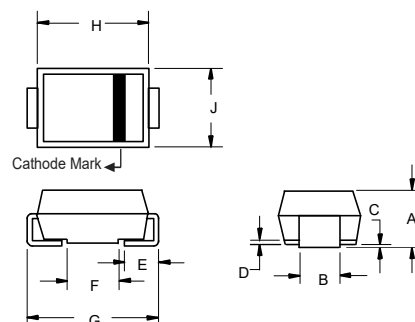
Parameter	Symbol	Rating	Conditions
Power Dissipation	P_D	1.5W	$T_L \leq 75^{\circ}\text{C}$
Maximum Forward Voltage	V_F	1.5V	$I_F = 200\text{mA}$

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

1.5 Watt Zener Diode 10 to 200 Volts

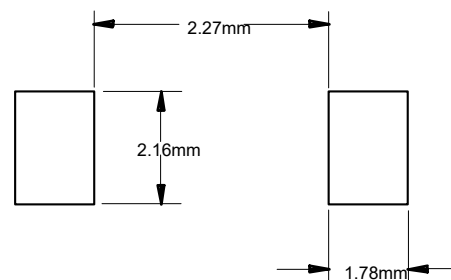
SMA (DO-214AC) LEAD FRAME



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.075	0.096	1.90	2.44	
B	0.050	0.064	1.27	1.63	
C	0.002	0.008	0.051	0.203	
D	---	0.020	---	0.51	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.189	0.220	4.80	5.59	
H	0.157	0.187	4.00	4.75	
J	0.090	0.115	2.25	2.92	

SUGGESTED SOLDER PAD LAYOUT



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Zener Voltage(3)	Test Current	Maximum Dynamic Impedance	Knee Current	Knee Impedance	Maximum Reverse Current	Reverse Voltage	Marking Code
	V_Z	I_{ZT}	$Z_{ZT} @ I_{ZT}$	I_{ZK}	Z_{ZK}	I_R	V_R	
	V	mA	Ω	mA	Ω	μA	V	
SMAJ5925BHE3	10	37.5	4.5	0.25	500	5	8	25B
SMAJ5926BHE3	11	34.1	5.5	0.25	550	1	8.4	26B
SMAJ5927BHE3	12	31.2	6.5	0.25	550	1	9.1	27B
SMAJ5928BHE3	13	28.8	7	0.25	550	1	9.9	28B
SMAJ5929BHE3	15	25	9	0.25	600	1	11.4	29B
SMAJ5930BHE3	16	23.4	10	0.25	600	1	12.2	30B
SMAJ5931BHE3	18	20.8	12	0.25	650	1	13.7	31B
SMAJ5932BHE3	20	18.7	14	0.25	650	1	15.2	32B
SMAJ5933BHE3	22	17	17.5	0.25	650	1	16.7	33B
SMAJ5934BHE3	24	15.6	19	0.25	700	1	18.2	34B
SMAJ5935BHE3	27	13.9	23	0.25	700	1	20.6	35B
SMAJ5936BHE3	30	12.5	28	0.25	750	1	22.8	36B
SMAJ5937BHE3	33	11.4	33	0.25	800	1	25.1	37B
SMAJ5938BHE3	36	10.4	38	0.25	850	1	27.4	38B
SMAJ5939BHE3	39	9.6	45	0.25	900	1	29.7	39B
SMAJ5940BHE3	43	8.7	53	0.25	950	1	32.7	40B
SMAJ5941BHE3	47	8	67	0.25	1000	1	35.8	41B
SMAJ5942BHE3	51	7.3	70	0.25	1100	1	38.8	42B
SMAJ5943BHE3	56	6.7	86	0.25	1300	1	42.6	43B
SMAJ5944BHE3	62	6	100	0.25	1500	1	47.1	44B
SMAJ5945BHE3	68	5.5	120	0.25	1700	1	51.7	45B
SMAJ5946BHE3	75	5	140	0.25	2000	1	56	46B
SMAJ5947BHE3	82	4.6	160	0.25	2500	1	62.2	47B
SMAJ5948BHE3	91	4.1	200	0.25	3000	1	69.2	48B
SMAJ5949BHE3	100	3.7	250	0.25	3100	1	76	49B
SMAJ5950BHE3	110	3.4	300	0.25	4000	1	83.6	50B
SMAJ5951BHE3	120	3.1	380	0.25	4500	1	91.2	51B
SMAJ5952BHE3	130	2.9	450	0.25	5000	1	98.8	52B
SMAJ5953BHE3	150	2.5	600	0.25	6000	1	114	53B
SMAJ5954BHE3	160	2.3	700	0.25	6500	1	121.6	54B
SMAJ5955BHE3	180	2.1	900	0.25	7000	1	136.8	55B
SMAJ5956BHE3	200	1.9	1200	0.25	8000	1	152	56B

Note:3. Based on DC-measurement at Thermal Equilibrium While Maintaining The Lead Temperature(T_L) at 30°C , 9.5mm(3/8) from The Diode Body

Curve Characteristics

Fig. 1 - Power Derating Curve

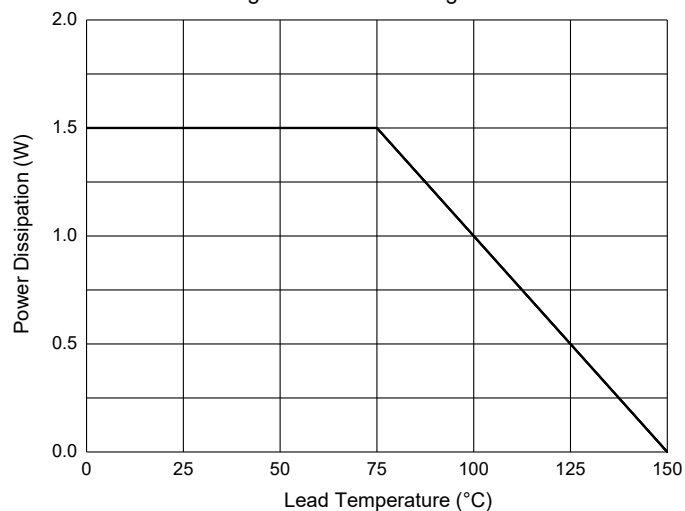


Fig. 2 - Typical Zener Breakdown Characteristics

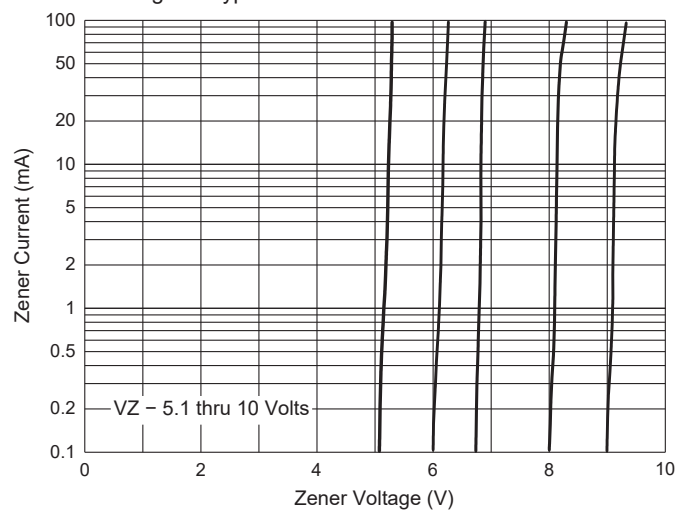


Fig. 3 - Typical Zener Breakdown Characteristics

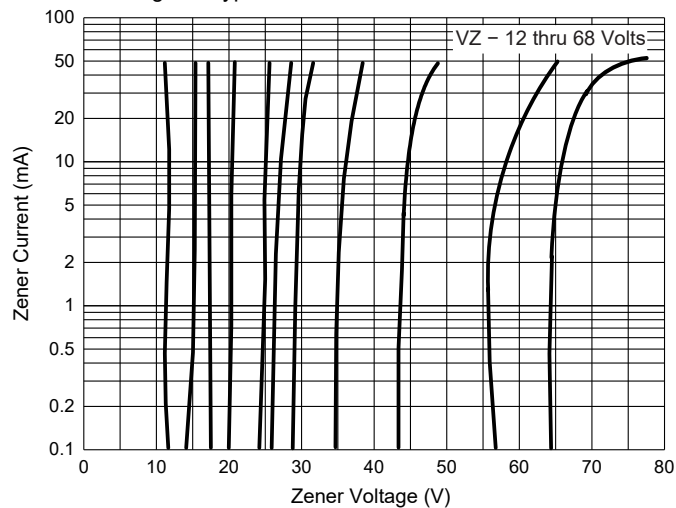
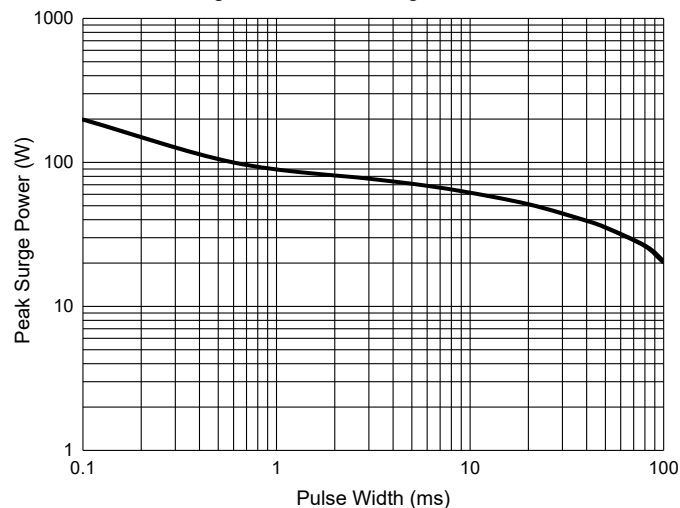


Fig. 4 - Maximum Surge Power



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:7.5Kpcs/Reel

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<u>SMAJ5945BHE3-TP</u>	<u>SMAJ5946BHE3-TP</u>	<u>SMAJ5947BHE3-TP</u>	<u>SMAJ5948BHE3-TP</u>	<u>SMAJ5949BHE3-TP</u>
<u>SMAJ5950BHE3-TP</u>	<u>SMAJ5951BHE3-TP</u>	<u>SMAJ5952BHE3-TP</u>	<u>SMAJ5953BHE3-TP</u>	<u>SMAJ5954BHE3-TP</u>
<u>SMAJ5955BHE3-TP</u>	<u>SMAJ5956BHE3-TP</u>			