

## Features

- Low Profile Package
- Ideal for Automated Placement
- Fully Automotive Qualified to AEC-Q101
- Halogen Free. "Green" Device <sup>(Note 1)</sup>
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant <sup>(Note2)</sup> ("P" Suffix Designates RoHS Compliant. See Ordering Information)

## Maximum Ratings(@ 25°C Unless Otherwise Specified)

Parameter	Symbol	Rating	Unit
DC Power Dissipation at $T_L = 75^\circ\text{C}$	$P_D$	1	W
Maximum Instantaneous Forward Voltage@ $I_F=200\text{mA}$	$V_F$	1.2	V
Operating Junction Temperature Range	$T_J$	-55~175	°C
Storage Temperature Range	$T_{stg}$	-55~175	°C

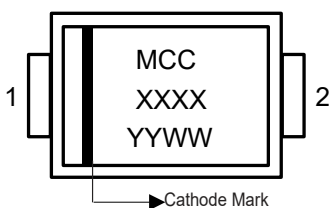
## Thermal Characteristics(@ 25°C Unless Otherwise Specified)

Parameter	Symbol	Rating	Unit
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	100	°C/W
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	120	°C/W
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	30	°C/W

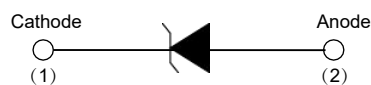
### Note:

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.
3. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.4" x 0.4" (10 mm x 10 mm) copper pad areas

### Simplified outline



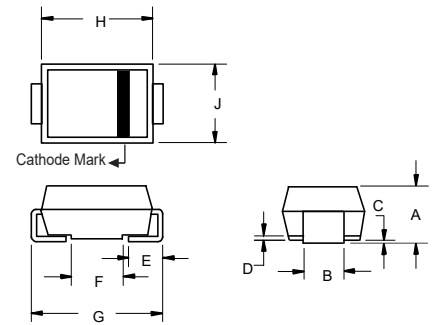
### Graphic symbol



XXXX = Marking code YYWW = Date Code

# 1 Watt Zener Diode 6.2 to 100 Volts

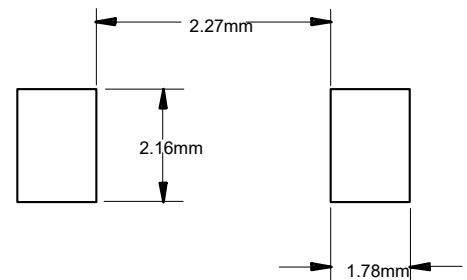
## SMA (DO-214AC) LEAD FRAME



### 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**

Part Number	Nominal Zener Voltage			Test Current	Maximum Dynamic Impedance Resistance			Maximum Reverse leakage Current		Maximum DC Zener Current	Marking Code
	VZ@IZT				IZT	ZZT at IZT	ZZK at IZK	IZK	IR		
	Min(V)	Nom(V)	Max(V)	mA	Ω	Ω	mA	μA	V	mA	
SMAJ4735AQ	5.89	6.2	6.51	41.00	2.0	700	1.00	10.0	3.0	146.0	735A
SMAJ4736AQ	6.46	6.8	7.14	37.00	3.5	700	1.00	10.0	4.0	133.0	736A
SMAJ4737AQ	7.13	7.5	7.88	34.00	4.0	700	0.50	10.0	5.0	121.0	737A
SMAJ4738AQ	7.79	8.2	8.61	31.00	4.5	700	0.50	10.0	6.0	110.0	738A
SMAJ4739AQ	8.65	9.1	9.56	28.00	5.0	700	0.50	10.0	7.0	100.0	739A
SMAJ4740AQ	9.50	10.0	10.50	25.00	7.0	700	0.25	10.0	7.6	91.0	740A
SMAJ4741AQ	10.45	11.0	11.55	23.00	8.0	700	0.25	5.0	8.4	83.0	741A
SMAJ4742AQ	11.40	12.0	12.60	21.00	9.0	700	0.25	5.0	9.1	76.0	742A
SMAJ4743AQ	12.35	13.0	13.65	19.00	10.0	700	0.25	5.0	9.9	69.0	743A
SMAJ4744AQ	14.25	15.0	15.75	17.00	14.0	700	0.25	5.0	11.4	61.0	744A
SMAJ4745AQ	15.20	16.0	16.80	15.50	16.0	700	0.25	5.0	12.2	57.0	745A
SMAJ4746AQ	17.10	18.0	18.90	14.00	20.0	750	0.25	5.0	13.7	50.0	746A
SMAJ4747AQ	19.00	20.0	21.00	12.50	22.0	750	0.25	5.0	15.2	45.0	747A
SMAJ4748AQ	20.90	22.0	23.10	11.50	23.0	750	0.25	5.0	16.7	41.0	748A
SMAJ4749AQ	22.80	24.0	25.20	10.50	25.0	750	0.25	5.0	18.2	38.0	749A
SMAJ4750AQ	25.65	27.0	28.35	9.50	35.0	750	0.25	5.0	20.6	34.0	750A
SMAJ4751AQ	28.50	30.0	31.50	8.50	40.0	1000	0.25	5.0	22.8	30.0	751A
SMAJ4752AQ	31.35	33.0	34.65	7.50	45.0	1000	0.25	5.0	25.1	27.0	752A
SMAJ4753AQ	34.20	36.0	37.80	7.00	50.0	1000	0.25	5.0	27.4	25.0	753A
SMAJ4754AQ	37.05	39.0	40.95	6.50	60.0	1000	0.25	5.0	29.7	23.0	754A
SMAJ4755AQ	40.85	43.0	45.15	6.00	70.0	1500	0.25	5.0	32.7	22.0	755A
SMAJ4756AQ	44.65	47.0	49.35	5.50	80.0	1500	0.25	5.0	35.8	19.0	756A
SMAJ4757AQ	48.45	51.0	53.55	5.00	95.0	1500	0.25	5.0	38.8	18.0	757A
SMAJ4758AQ	53.20	56.0	58.80	4.50	110.0	2000	0.25	5.0	42.6	16.0	758A
SMAJ4759AQ	58.90	62.0	65.10	4.00	125.0	2000	0.25	5.0	47.1	14.0	759A
SMAJ4760AQ	64.60	68.0	71.40	3.70	150.0	2000	0.25	5.0	51.7	13.0	760A
SMAJ4761AQ	71.25	75.0	78.75	3.30	175.0	2000	0.25	5.0	56.0	12.0	761A
SMAJ4762AQ	77.90	82.0	86.10	3.00	200.0	3000	0.25	5.0	62.2	11.0	762A
SMAJ4763AQ	86.45	91.0	95.55	2.80	250.0	3000	0.25	5.0	69.2	10.0	763A
SMAJ4764AQ	95.00	100.0	105.00	2.50	350.0	3000	0.25	5.0	76.0	9.0	764A

**Curve Characteristics**

Fig. 1 - Power Derating Curve

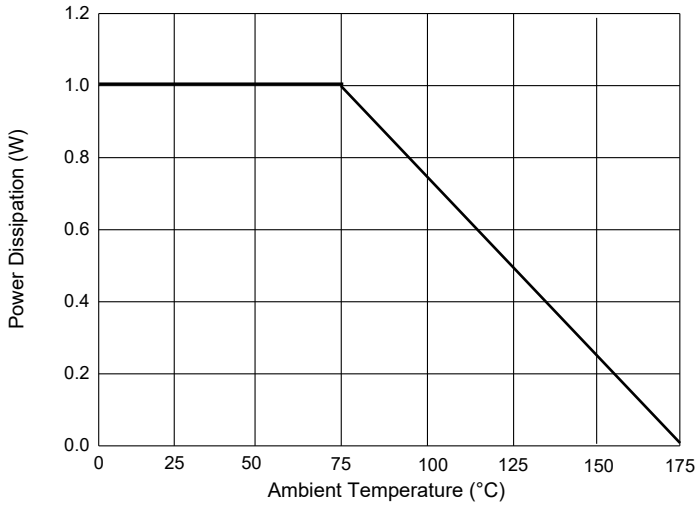


Fig. 2 - Typical Forward Characteristics

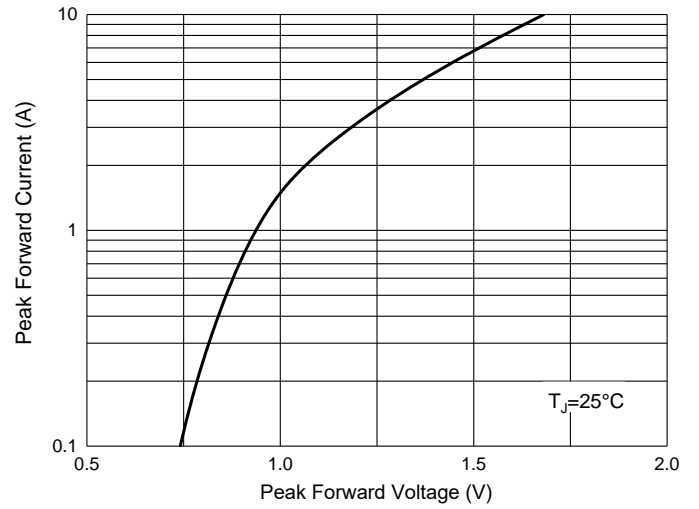


Fig. 3 - Pulse Waveform

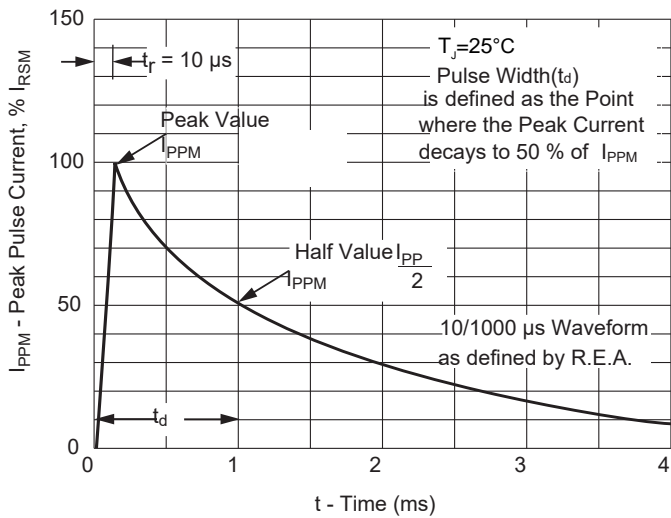
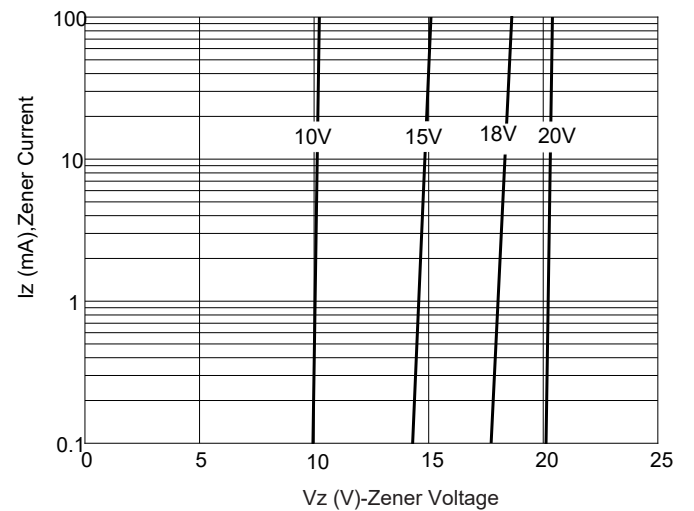


Fig. 4 - Typical Zener Breakdown Characteristics



## Ordering Information

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

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