

Features

- Low Profile Package
- Ideal for Automated Placement
- Fully Automotive Qualified to AEC-Q101
- 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 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	1.5	W
Maximum Instantaneous Forward Voltage@ $I_F=200\text{mA}$	V_F	1.5	V
Operating Junction Temperature Range	T_J	-55~175	°C
Storage Temperature Range	T_{stg}	-55~175	°C

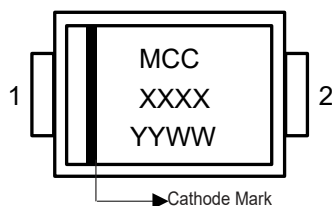
Thermal Characteristics(@ 25°C Unless Otherwise Specified)

Parameter	Symbol	Rating	Unit
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	66	°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

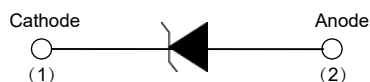
Note:

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

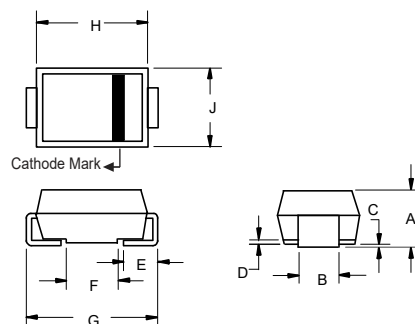


Graphic symbol



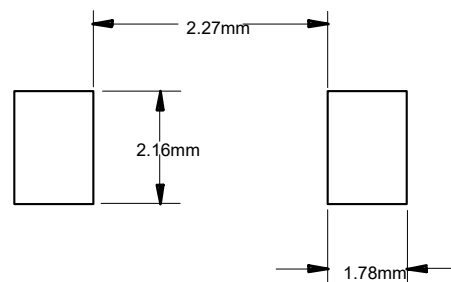
1.5 Watt Zener Diode 6.8V to 200 Volts

SMA (DO-214AC) LEAD FRAME



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



XXXX = Marking code YYWW = Date Code

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	
SMAJ5921BQ	6.46	6.8	7.14	55.1	2.5	200	1.00	10.0	5.2	221.0	21B
SMAJ5922BQ	7.13	7.5	7.88	50.0	3.0	400	0.50	10.0	6.0	200.0	22B
SMAJ5923BQ	7.79	8.2	8.61	45.7	3.5	400	0.50	10.0	6.5	183.0	23B
SMAJ5924BQ	8.65	9.1	9.56	41.2	4.0	500	0.50	10.0	7.0	165.0	24B
SMAJ5925BQ	9.50	10.0	10.50	37.5	4.5	500	0.25	10.0	8.0	150.0	25B
SMAJ5926BQ	10.45	11.0	11.55	34.1	5.5	550	0.25	0.5	8.4	136.0	26B
SMAJ5927BQ	11.40	12.0	12.60	31.2	6.5	550	0.25	0.5	9.1	125.0	27B
SMAJ5928BQ	12.35	13.0	13.65	28.8	7.0	550	0.25	0.5	9.9	115.0	28B
SMAJ5929BQ	14.25	15.0	15.75	25.0	9.0	600	0.25	0.5	11.4	100.0	29B
SMAJ5930BQ	15.20	16.0	16.80	23.4	10.0	600	0.25	0.5	12.2	94.0	30B
SMAJ5931BQ	17.10	18.0	18.90	20.8	12.0	650	0.25	0.5	13.7	83.0	31B
SMAJ5932BQ	19.00	20.0	21.00	18.7	14.0	650	0.25	0.5	15.2	75.0	32B
SMAJ5933BQ	20.90	22.0	23.10	17.0	17.5	650	0.25	0.5	16.7	68.0	33B
SMAJ5934BQ	22.80	24.0	25.20	15.6	19.0	700	0.25	0.5	18.2	63.0	34B
SMAJ5935BQ	25.65	27.0	28.35	13.9	23.0	700	0.25	0.5	20.6	56.0	35B
SMAJ5936BQ	28.50	30.0	31.50	12.5	26.0	750	0.25	0.5	22.8	50.0	36B
SMAJ5937BQ	31.35	33.0	34.65	11.4	33.0	800	0.25	0.5	25.1	45.0	37B
SMAJ5938BQ	34.20	36.0	37.80	10.4	38.0	850	0.25	0.5	27.4	42.0	38B
SMAJ5939BQ	37.05	39.0	40.95	9.6	45.0	900	0.25	0.5	29.7	38.0	39B
SMAJ5940BQ	40.85	43.0	45.15	8.7	53.0	950	0.25	0.5	32.7	35.0	40B
SMAJ5941BQ	44.65	47.0	49.35	8.0	67.0	1000	0.25	0.5	35.8	32.0	41B
SMAJ5942BQ	48.45	51.0	53.55	7.3	70.0	1100	0.25	0.5	38.8	29.0	42B
SMAJ5943BQ	53.20	56.0	58.80	6.7	86.0	1300	0.25	0.5	42.6	27.0	43B
SMAJ5944BQ	58.90	62.0	65.10	6.0	100.0	1500	0.25	0.5	47.1	24.0	44B
SMAJ5945BQ	64.60	68.0	71.40	5.5	120.0	1700	0.25	0.5	51.7	22.0	45B
SMAJ5946BQ	71.25	75.0	78.75	5.0	140.0	2000	0.25	0.5	56.0	20.0	46B
SMAJ5947BQ	77.90	82.0	86.10	4.6	160.0	2500	0.25	0.5	62.2	18.0	47B
SMAJ5948BQ	86.45	91.0	95.55	4.1	200.0	3000	0.25	0.5	69.2	16.0	48B
SMAJ5949BQ	95.00	100.0	105.00	3.7	250.0	3100	0.25	0.5	76.0	15.0	49B
SMAJ5950BQ	104.50	110.0	115.50	3.4	300.0	4000	0.25	0.5	83.6	14.0	50B
SMAJ5951BQ	114.00	120.0	126.00	3.1	380.0	4500	0.25	0.5	91.2	13.0	51B
SMAJ5952BQ	123.50	130.0	136.50	2.9	450.0	5000	0.25	0.5	98.8	12.0	52B
SMAJ5953BQ	142.50	150.0	157.50	2.5	600.0	6000	0.25	0.5	114.0	10.0	53B
SMAJ5954BQ	152.00	160.0	168.00	2.3	700.0	6500	0.25	0.5	121.6	9.4	54B
SMAJ5955BQ	171.00	180.0	189.00	2.1	900.0	7000	0.25	0.5	136.8	8.3	55B
SMAJ5956BQ	190.00	200.0	210.00	1.9	1200.0	8000	0.25	0.5	152.0	7.5	56B

Curve Characteristics

Fig. 1 - Power Derating Curve

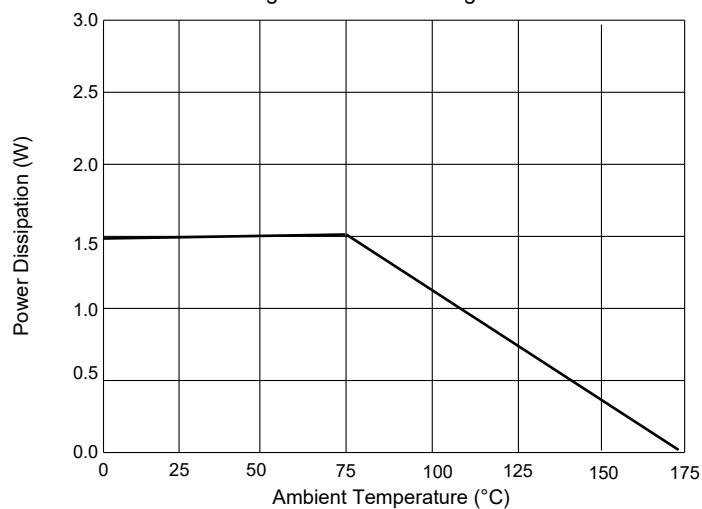


Fig. 2 - Typical Forward Characteristics

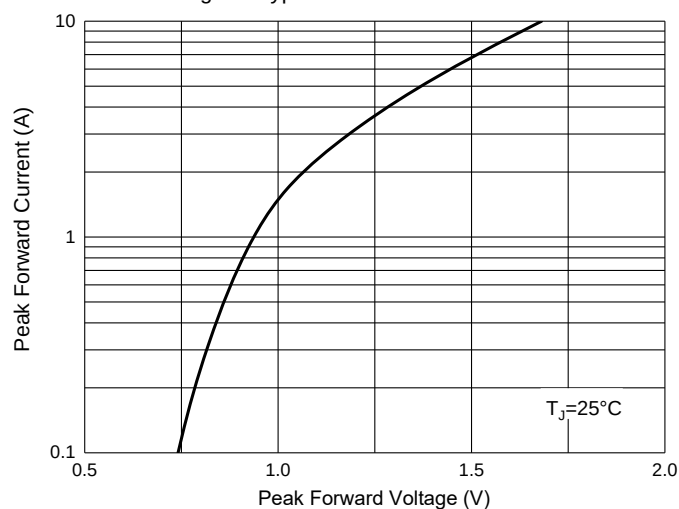


Fig. 3 - Pulse Waveform

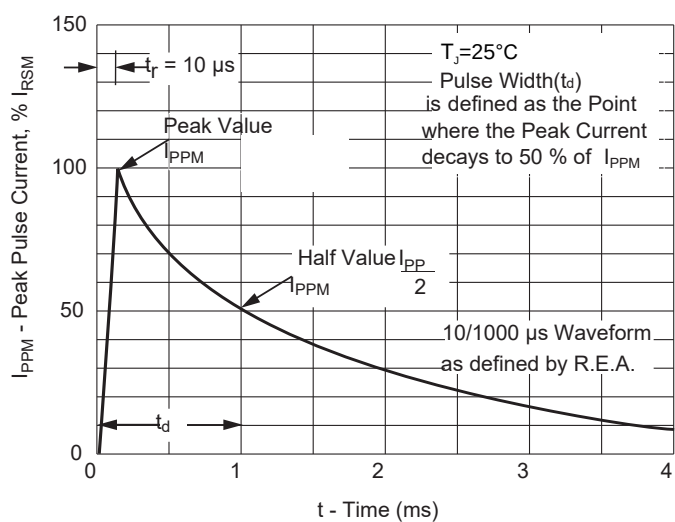
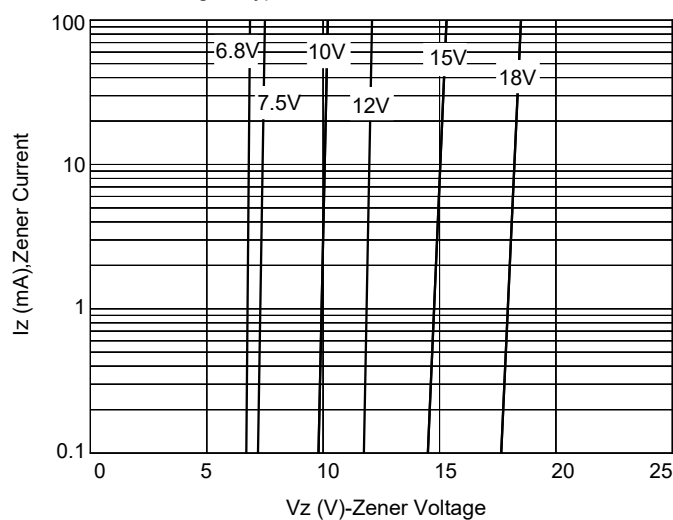


Fig. 4 - Typical Zener Breakdown Characteristics



Ordering Information

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

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