

## Features

- Glass Passivated Junction
- Excellent Clamping Capability
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates Compliant. See Ordering Information)

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

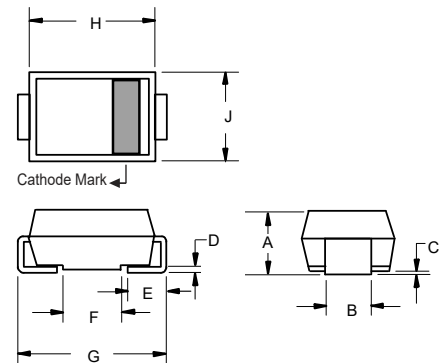
Parameter	Symbol	Rating	Conditions
Power Dissipation	$P_D$	3.0W	Note 3
Maximum Forward Voltage	$V_F$	1.5V	$I_F=200mA$

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.  $T_L=75^\circ C$  at 3/8"(9.5mm) from body

# 3.0 Watt Surface Mount Silicon Zener Diodes 5.6V to 200V

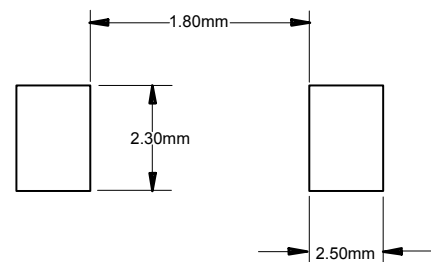
## SMB (DO-214AA) (LEAD FRAME)



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

### Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Device Marking Code
	$V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R$	$V_R$	$I_{ZM}$	
	V	mA	$\Omega$	$\Omega$	mA	$\mu A$	V	(mA)	
SMB3EZ5.6D5	5.6	134.0	2.5	600	1.00	5.0	2.0	481	3H6
SMB3EZ6.2D5	6.2	121.0	1.5	700	1.00	5.0	3.0	435	3A0
SMB3EZ6.8D5	6.8	110.0	2.0	700	1.00	5.0	4.0	393	3A1
SMB3EZ7.5D5	7.5	100.0	2.0	700	0.50	5.0	5.0	360	3A2
SMB3EZ8.2D5	8.2	91.0	2.3	700	0.50	5.0	6.0	330	3A3
SMB3EZ9.1D5	9.1	82.0	2.5	700	0.50	3.0	7.0	297	3A4
SMB3EZ10D5	10.0	75.0	3.5	700	0.25	3.0	7.6	270	3A5
SMB3EZ11D5	11.0	68.0	4.0	700	0.25	1.0	8.4	225	3A6
SMB3EZ12D5	12.0	63.0	4.5	700	0.25	1.0	9.1	246	3A7
SMB3EZ13D5	13.0	58.0	4.5	700	0.25	0.5	9.9	208	3A8
SMB3EZ14D5	14.0	53.0	5.0	700	0.25	0.5	10.6	193	3A9
SMB3EZ15D5	15.0	50.0	5.5	700	0.25	0.5	11.4	180	3B0
SMB3EZ16D5	16.0	47.0	5.5	700	0.25	0.5	12.2	169	3B1
SMB3EZ17D5	17.0	44.0	6.0	750	0.25	0.5	13.0	159	3B2
SMB3EZ18D5	18.0	42.0	6.0	750	0.25	0.5	13.7	150	3B3
SMB3EZ19D5	19.0	40.0	7.0	750	0.25	0.5	14.4	142	3B4
SMB3EZ20D5	20.0	37.0	7.0	750	0.25	0.5	15.2	135	3B5
SMB3EZ22D5	22.0	34.0	8.0	750	0.25	0.5	16.7	123	3B6
SMB3EZ24D5	24.0	31.0	9.0	750	0.25	0.5	18.2	112	3B7
SMB3EZ27D5	27.0	28.0	10.0	750	0.25	0.5	20.6	100	3B8
SMB3EZ28D5	28.0	27.0	12.0	750	0.25	0.5	21.0	96	3B9
SMB3EZ30D5	30.0	25.0	16.0	1000	0.25	0.5	22.5	90	3C0
SMB3EZ33D5	33.0	23.0	20.0	1000	0.25	0.5	25.1	82	3C1
SMB3EZ36D5	36.0	21.0	22.0	1000	0.25	0.5	27.4	75	3C2
SMB3EZ39D5	39.0	19.0	28.0	1000	0.25	0.5	29.7	69	3C3
SMB3EZ43D5	43.0	17.0	33.0	1500	0.25	0.5	32.7	63	3C4
SMB3EZ47D5	47.0	16.0	38.0	1500	0.25	0.5	35.6	57	3C5
SMB3EZ51D5	51.0	15.0	45.0	1500	0.25	0.5	38.8	53	3C6
SMB3EZ56D5	56.0	13.0	50.0	2000	0.25	0.5	42.6	48	3C7
SMB3EZ62D5	62.0	12.0	55.0	2000	0.25	0.5	47.1	44	3C8
SMB3EZ68D5	68.0	11.0	70.0	2000	0.25	0.5	51.7	40	3C9
SMB3EZ75D5	75.0	10.0	85.0	2000	0.25	0.5	56.0	36	3F0
SMB3EZ82D5	82.0	9.1	95.0	3000	0.25	0.5	62.2	33	3F1
SMB3EZ91D5	91.0	8.2	115	3000	0.25	0.5	69.2	30	3F2
SMB3EZ100D5	100	7.5	160	3000	0.25	0.5	76.0	27	3F3
SMB3EZ110D5	110	6.8	225	4000	0.25	0.5	83.6	25	3F4
SMB3EZ120D5	120	6.3	300	4500	0.25	0.5	91.2	22	3F5
SMB3EZ130D5	130	5.8	375	5000	0.25	0.5	98.8	21	3F6
SMB3EZ140D5	140	5.3	475	5000	0.25	0.5	106.4	19	3F7
SMB3EZ150D5	150	5.0	550	6000	0.25	0.5	114.0	18	3F8
SMB3EZ160D5	160	4.7	625	6500	0.25	0.5	121.6	17	3F9
SMB3EZ170D5	170	4.4	650	7000	0.25	0.5	130.4	16	3G1
SMB3EZ180D5	180	4.2	700	7000	0.25	0.5	136.8	15	3G2
SMB3EZ190D5	190	4.0	800	8000	0.25	0.5	144.8	14	3G3
SMB3EZ200D5	200	3.7	875	8000	0.25	0.5	152.0	13	3G4

Notes : The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$

**Curve Characteristics**

Fig. 1 - Power Derating Curve

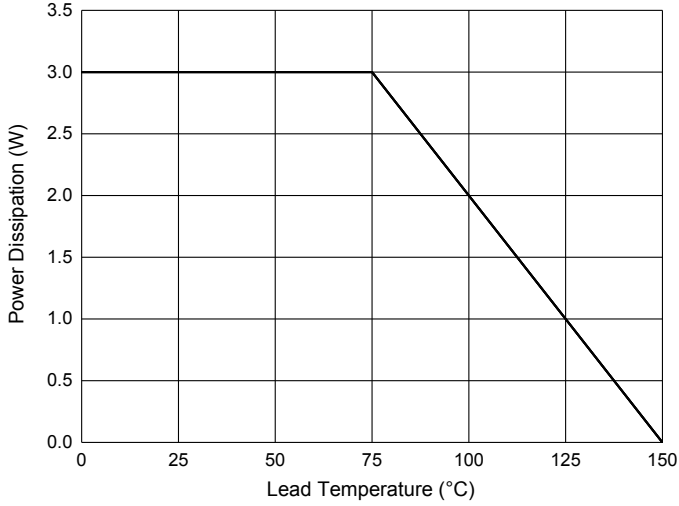


Fig. 2 - Typical Zener Breakdown Characteristics

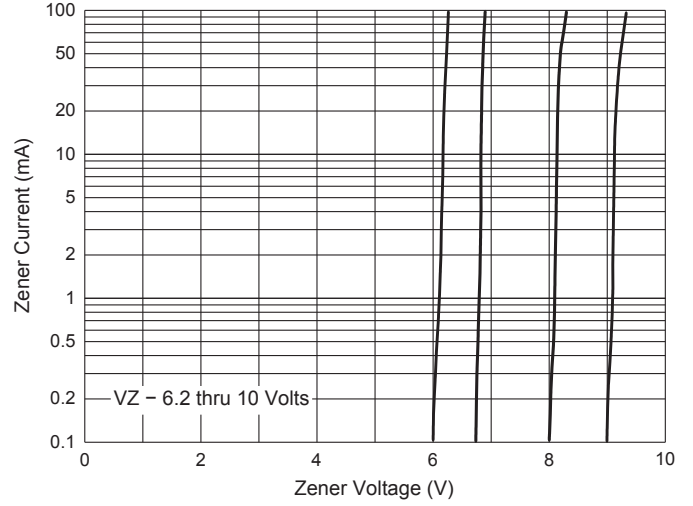


Fig. 3 - Typical Zener Breakdown Characteristics

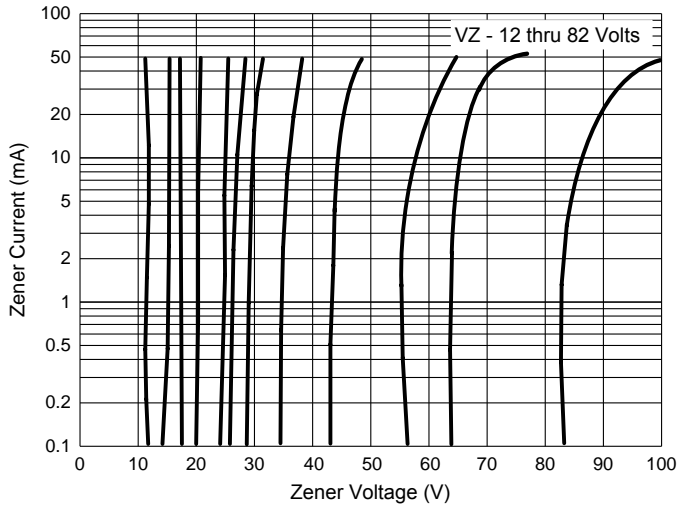
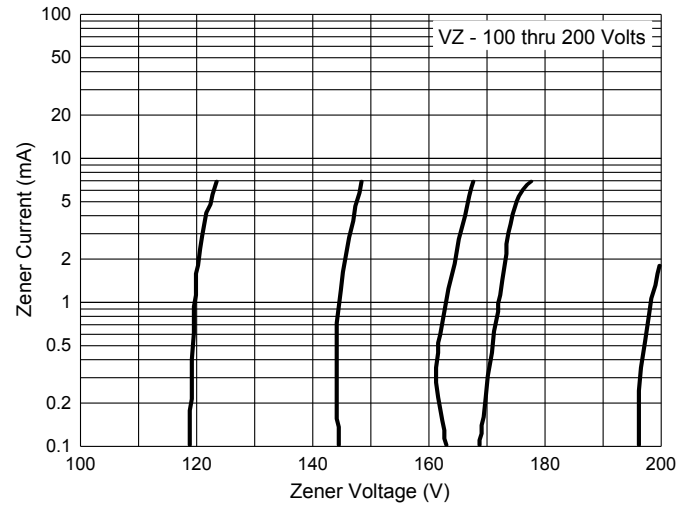


Fig. 4 - Typical Zener Breakdown Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

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