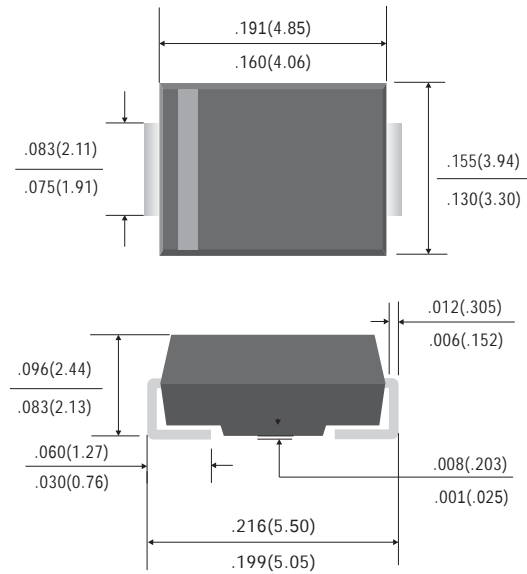


**2W SURFACE MOUNT ZENER DIODES-6.2 to 330V**

**SMB PACKAGE**

**FEATURES**

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- For use in stabilizing and clipping circuits with high power rating
- RoHS product for packing code suffix "G"  
Halogen free product for packing code suffix "H"



**MECHANICAL DATA**

- Case: DO-214AA/SMB, Molded Plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Packing information: Taping Reel - 3K per 13" Reel

Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Parameter	Symbol	Value	UNIT
DC Power Dissipation at $T_L = 50\text{ }^\circ\text{C}$ (Note1)	$P_D$	2.0	Watts
Maximum Forward Voltage at $I_F = 200\text{ mA}$ .	$V_F$	1.5	Volts
Junction Temperature Range	$T_J$	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 150	$^\circ\text{C}$

**Note:**

(1)  $T_L$  = Lead temperature at 3/8 " (9.5mm) from body.



# WILLAS



**SMB2EZ6.2D5  
THRU  
SMB2EZ330D5**

**2W SURFACE MOUNT ZENER DIODES-6.2 to 330V**

**SMB PACKAGE**

Part No.	Marking Code	Nominal Zener Voltage			Max. Zener Impedance				Max. Reverse Leakage Current		Max. Regulator Current
		$V_Z @ I_{ZT}$			$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$I_{ZM}$
		Nom. V	Min. V	Max. V	$\Omega$	mA	$\Omega$	mA	$\mu A$	V	mA
SMB2EZ6.2D5	2A0	6.2	5.89	6.51	1.5	80.5	700	1.0	5.0	3.0	292
SMB2EZ6.8D5	2A1	6.8	6.46	7.14	2.0	73.5	700	1.0	50	4.0	266
SMB2EZ7.5D5	2A2	7.5	7.13	7.88	2.0	66.5	700	0.5	50	5.0	242
SMB2EZ8.2D5	2A3	8.2	7.79	8.61	2.3	61	700	0.5	50	6.0	220
SMB2EZ9.1D5	2A4	9.1	8.65	9.56	2.5	55	700	0.5	50	7.0	200
SMB2EZ10D5	2A5	10	9.50	10.50	3.5	50	700	0.25	50	7.6	182
SMB2EZ11D5	2A6	11	10.45	11.55	4.0	45.5	700	0.25	50	8.4	166
SMB2EZ12D5	2A7	12	11.40	12.60	4.5	41.5	700	0.25	1.0	9.1	152
SMB2EZ13D5	2A8	13	12.35	13.65	4.5	38.5	700	0.25	0.5	9.9	138
SMB2EZ14D5	2A9	14	13.30	14.70	5.0	35.7	700	0.25	0.5	10.6	130
SMB2EZ15D5	2B0	15	14.25	15.75	5.5	33.4	700	0.25	0.5	11.4	122
SMB2EZ16D5	2B1	16	15.20	16.80	5.5	31.2	700	0.25	0.5	12.2	114
SMB2EZ17D5	2B2	17	16.15	17.85	6.0	29.4	750	0.25	0.5	13.0	107
SMB2EZ18D5	2B3	18	17.10	18.90	6.0	27.8	750	0.25	0.5	13.7	100
SMB2EZ19D5	2B4	19	18.05	19.95	7.0	26.3	750	0.25	0.5	14.4	95
SMB2EZ20D5	2B5	20	19.00	21.00	7.0	25	750	0.25	0.5	15.2	90
SMB2EZ22D5	2B6	22	20.90	23.10	8.0	22.8	750	0.25	0.5	16.7	82
SMB2EZ24D5	2B7	24	22.80	25.20	9.0	20.8	750	0.25	0.5	18.2	76
SMB2EZ27D5	2B8	27	25.65	28.35	10	18.5	750	0.25	0.5	20.6	68
SMB2EZ30D5	2B9	30	28.50	31.50	16	16.6	1000	0.25	0.5	22.5	60
SMB2EZ33D5	2C0	33	31.35	34.65	20	15.1	1000	0.25	0.5	25.1	55
SMB2EZ36D5	2C1	36	34.20	37.80	22	13.9	1000	0.25	0.5	27.4	50
SMB2EZ39D5	2C2	39	37.05	40.95	28	12.8	1000	0.25	0.5	29.7	47
SMB2EZ43D5	2C3	43	40.85	45.15	33	11.6	1500	0.25	0.5	32.7	43
SMB2EZ47D5	2C4	47	44.65	49.35	38	10.6	1500	0.25	0.5	35.8	39
SMB2EZ51D5	2C5	51	48.45	53.55	45	9.8	1500	0.25	0.5	38.8	36
SMB2EZ56D5	2C6	56	53.20	58.80	50	9	2000	0.25	0.5	42.6	32
SMB2EZ62D5	2C7	62	58.90	65.10	55	8.1	2000	0.25	0.5	47.1	29
SMB2EZ68D5	2C8	68	64.60	71.40	70	7.4	2000	0.25	0.5	51.7	27
SMB2EZ75D5	2C9	75	71.25	78.75	85	6.7	2000	0.25	0.5	56.0	24
SMB2EZ82D5	2F0	82	77.90	86.10	95	6.1	3000	0.25	0.5	62.2	22
SMB2EZ91D5	2F1	91	86.45	95.55	115	5.5	3000	0.25	0.5	69.2	20
SMB2EZ100D5	2F2	100	95.00	105.00	160	5.0	3000	0.25	0.5	76.0	18
SMB2EZ110D5	2F3	110	104.50	115.50	225	4.5	4000	0.25	0.5	83.6	17
SMB2EZ120D5	2F4	120	114.00	126.00	300	4.2	4500	0.25	0.5	91.2	15
SMB2EZ130D5	2F5	130	123.50	136.50	375	3.8	5000	0.25	0.5	98.8	14
SMB2EZ140D5	2F6	140	133.00	147.00	475	3.6	5500	0.25	0.5	106.4	13
SMB2EZ150D5	2F7	150	142.50	157.50	550	3.3	6000	0.25	0.5	114.0	12
SMB2EZ160D5	2F8	160	152.00	168.00	625	3.1	6500	0.25	0.5	121.6	11
SMB2EZ170D5	2F9	170	161.50	178.50	650	2.9	7000	0.25	0.5	130.4	11
SMB2EZ180D5	2G1	180	171.00	189.00	700	2.8	7000	0.25	0.5	136.8	10
SMB2EZ190D5	2G2	190	180.50	199.50	800	2.6	8000	0.25	0.5	144.8	10
SMB2EZ200D5	2G3	200	190.00	210.00	650	2.5	9990	0.25	0.5	152.0	9
SMB2EZ220D5	2G4	220	209.00	231.00	700	2.0	8500	0.25	0.5	167.0	8
SMB2EZ270D5	2G5	270	256.50	283.50	700	1.6	8500	0.25	0.5	205.0	6.7
SMB2EZ300D5	2G6	300	285.00	315.00	800	1.5	9000	0.25	0.5	228.0	5.9
SMB2EZ330D5	2G7	330	313.50	346.50	875	1.4	9000	0.25	0.5	250.0	5.4

**Notes :**

- (1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on  $I_{ZT}$  per JEDEC Method.

**2W SURFACE MOUNT ZENER DIODES-6.2 to 330V  
SMB PACKAGE**

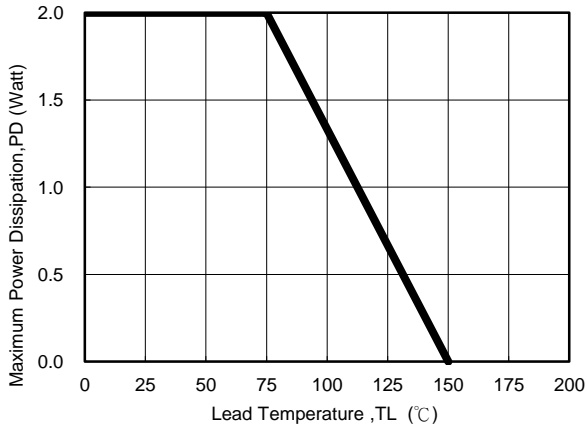


Fig. 1 - Power Temperature Derating (

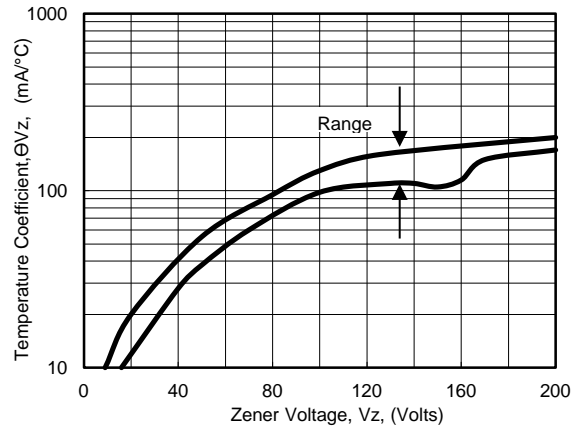


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

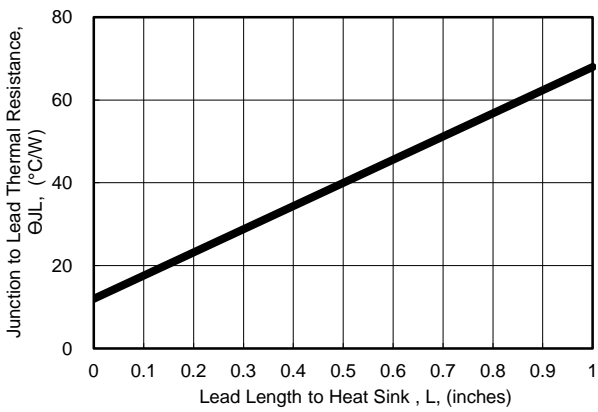


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

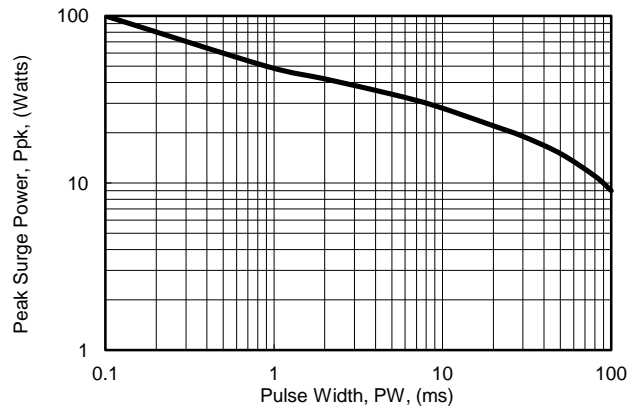


Fig. 4 - Maximum Surge Power

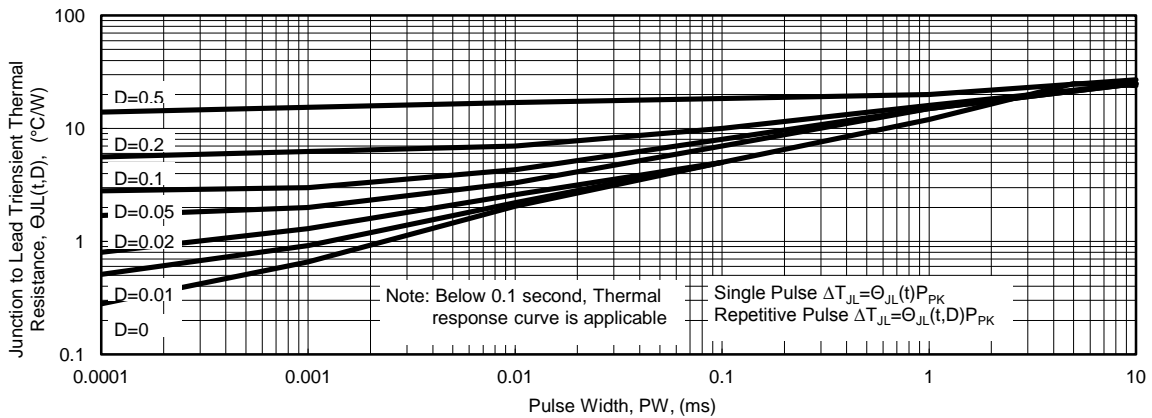


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch