

## GLZ Series

$V_Z$  : 3.3 to 39V

$P_D$  : 500mW

### FEATURES :

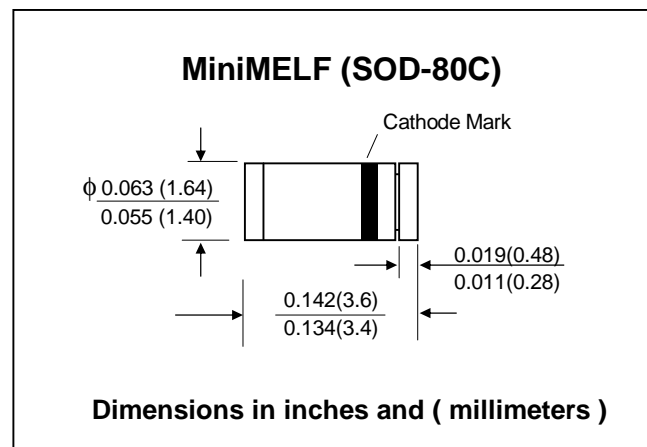
- Silicon Planar Zener Diodes
- In MiniMELF case especially for automatic insertion
- The Zener voltages are graded according to voltage bands instead of by tolerance.
- Low Zener impedance and low leakage current
- Pb / RoHS Free

### MECHANICAL DATA :

\* Case : MiniMELF Glass Case (SOD-80C)

\* Weight : 0.05 gram (approximately)

## ZENER DIODES



## Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation	$P_D$	500	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 <sup>1)</sup>	°C/W
Junction Temperature Range	$T_J$	175	°C
Storage Temperature Range	$T_{STG}$	- 55 to + 175	°C

Note : 1) Valid provided that electrodes are kept at ambient temperature.

## ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Rank	Zener Voltage		Test Current $I_{ZT}$ (mA)	Maximum Zener Impedance, $f = 1\text{ kHz}$			Maximum Reverse Current	
		$V_Z$ (V) at $I_{ZT}$			$Z_{ZT}$ @ $I_{ZT}$ ( $\Omega$ )	$Z_{ZK}$ @ $I_{ZK}$ ( $\Omega$ )	$I_{ZK}$ (mA)	$I_R$ ( $\mu\text{A}$ )	at $V_R$ (V)
		min.	max.						
GLZ3.3	A	3.160	3.380	20	70	1000	1	20	1
	B	3.320	3.530						
GLZ3.6	A	3.455	3.695	20	60	1000	1	10	1
	B	3.600	3.845						
GLZ3.9	A	3.74	4.01	20	50	1000	1	5	1
	B	3.89	4.16						
GLZ4.3	A	4.04	4.29	20	40	1000	1	5	1
	B	4.17	4.43						
	C	4.30	4.57						
GLZ4.7	A	4.44	4.68	20	25	900	1	5	1
	B	4.55	4.80						
	C	4.68	4.93						
GLZ5.1	A	4.81	5.07	20	20	800	1	5	1.5
	B	4.94	5.20						
	C	5.09	5.37						
GLZ5.6	A	5.28	5.55	20	13	500	1	5	2.5
	B	5.45	5.73						
	C	5.61	5.91						
GLZ6.2	A	5.78	6.09	20	10	300	1	5	3
	B	5.96	6.27						
	C	6.12	6.44						
GLZ6.8	A	6.29	6.63	20	8	150	0.5	2	3.5
	B	6.49	6.83						
	C	6.66	7.01						
GLZ7.5	A	6.85	7.22	20	8	120	0.5	0.5	4
	B	7.07	7.45						
	C	6.29	7.67						
GLZ8.2	A	7.53	7.92	20	8	120	0.5	0.5	5
	B	7.78	8.19						
	C	8.03	8.45						
GLZ9.1	A	8.29	8.73	20	8	120	0.5	0.5	6
	B	8.57	9.01						
	C	8.83	9.30						
GLZ10	A	9.12	9.59	20	8	120	0.5	0.2	7
	B	9.41	9.90						
	C	9.70	10.20						
	D	9.94	10.44						
GLZ11	A	10.18	10.71	20	10	120	0.5	0.2	8
	B	10.50	11.05						
	C	10.82	11.38						
GLZ12	A	11.13	11.71	20	12	110	0.5	0.2	9
	B	11.44	12.03						
	C	11.74	12.35						
GLZ13	A	12.11	12.75	10	14	110	0.5	0.2	10
	B	12.55	13.21						
	C	12.99	13.66						

## ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Rank	Zener Voltage		Test Current $I_{ZT}$ (mA)	Maximum Zener Impedance, $f = 1\text{ kHz}$			Maximum Reverse Current	
		$V_Z$ (V) at $I_{ZT}$			$Z_{ZT}$ @ $I_{ZT}$ ( $\Omega$ )	$Z_{ZK}$ @ $I_{ZK}$ ( $\Omega$ )	$I_{ZK}$ (mA)	$I_R$ ( $\mu\text{A}$ )	at $V_R$ (V)
		min.	max.						
GLZ15	A	13.45	14.13	10	16	110	0.5	0.2	11
	B	13.89	14.62						
	C	14.35	15.09						
GLZ16	A	14.80	15.57	10	18	150	0.5	0.2	12
	B	15.25	16.04						
	C	15.69	16.51						
GLZ18	A	16.22	17.06	10	23	150	0.5	0.2	13
	B	16.82	17.70						
	C	17.42	18.33						
GLZ20	A	18.02	18.96	10	28	200	0.5	0.2	15
	B	18.63	19.59						
	C	19.23	20.22						
	D	19.72	20.72						
GLZ22	A	20.15	21.20	5	30	200	0.5	0.2	17
	B	20.64	21.71						
	C	21.08	22.17						
	D	21.52	22.63						
GLZ24	A	22.05	23.18	5	35	200	0.5	0.2	19
	B	22.61	23.77						
	C	23.12	24.31						
	D	23.63	24.85						
GLZ27	A	24.26	25.52	5	45	200	0.5	0.2	21
	B	24.97	26.26						
	C	25.63	26.95						
	D	26.29	27.54						
GLZ30	A	26.99	28.39	5	55	250	0.5	0.2	23
	B	27.70	29.13						
	C	28.36	29.82						
	D	29.20	30.51						
GLZ33	A	29.68	31.22	5	65	250	0.5	0.2	25
	B	30.32	31.88						
	C	30.90	32.50						
	D	31.49	33.11						
GLZ36	A	31.14	33.79	5	75	250	0.5	0.2	27
	B	32.76	34.49						
	C	33.40	35.13						
	D	34.01	35.77						
GLZ39	A	34.68	36.47	5	85	250	0.5	0.2	30
	B	35.36	37.19						
	C	36.00	37.85						
	D	36.63	38.52						

Notes:

- (1) The Zener voltage is measured 40ms after power is supplied.
- (2) Specify Zener voltage rank (A, B, C, or D) when ordering parts