

Small Signal Product

Surface Mount Zener Voltage Regulator

FEATURES

- Zener voltage range : 2.4V to 75V
- Surface device type mounting
- Hermetically sealed glass
- Compression bonded construction
- Matte Tin (Sn) lead finish
- Pb free and RoHS compliant
- All external surfaces are corrosion resistant and terminals are readily solderable



Mini-MELF (LL34)

Hermetically Sealed Glass

MECHANICAL DATA

- Case: Mini-MELF Package (JEDEC DO-213AC)
- High temperature soldering guaranteed: 260°C/10s
- Polarity: Indicated by cathode band
- Weight: 12 mg (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P _D	500	mW
Forward Voltage	V _F	1.5	V
Junction and Storage Temperature Range	T _J , T _{STG}	- 65 to +200	°C

Notes: These ratings are limiting values above which the serviceability of the diode may be impaired.

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 ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Device Type	$V_Z @ I_{ZT}$ (Volt)		I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (V)
	Min	Max						
BZV79C 2V4	2.28	2.56	5	100	1	600	100	1
BZV79C 2V7	2.51	2.89	5	100	1	600	75	1
BZV79C 3V0	2.8	3.2	5	95	1	600	50	1
BZV79C 3V3	3.1	3.5	5	95	1	600	25	1
BZV79C 3V6	3.4	3.8	5	90	1	600	15	1
BZV79C 3V9	3.7	4.1	5	90	1	600	10	1
BZV79C 4V3	4	4.6	5	90	1	600	5	1
BZV79C 4V7	4.4	5	5	80	1	500	3	2
BZV79C 5V1	4.8	5.4	5	60	1	480	2	2
BZV79C 5V6	5.2	6	5	40	1	400	1	2
BZV79C 6V2	5.8	6.6	5	10	1	150	3	4
BZV79C 6V8	6.4	7.2	5	15	1	80	2	4
BZV79C 7V5	7	7.9	5	15	1	80	1	5
BZV79C 8V2	7.7	8.7	5	15	1	80	0.7	5
BZV79C 9V1	8.5	9.6	5	15	1	100	0.5	6
BZV79C 10	9.4	10.6	5	20	1	150	0.2	7
BZV79C 11	10.4	11.6	5	20	1	150	0.1	8
BZV79C 12	11.4	12.7	5	25	1	150	0.1	8
BZV79C 13	12.4	14.1	5	30	1	170	0.1	8
BZV79C 15	13.8	15.6	5	30	1	200	0.05	10.5
BZV79C 16	15.3	17.1	5	40	1	200	0.05	11.2
BZV79C 18	16.8	19.1	5	45	1	225	0.05	12.6
BZV79C 20	18.8	21.2	5	55	1	225	0.05	14
BZV79C 22	20.8	23.3	5	55	1	250	0.05	15.4
BZV79C 24	22.8	25.6	5	70	1	250	0.05	16.8
BZV79C 27	25.1	28.9	2	80	0.5	300	0.05	18.9
BZV79C 30	28	32	2	80	0.5	300	0.05	21
BZV79C 33	31	35	2	80	0.5	325	0.05	23.1
BZV79C 36	34	38	2	90	0.5	350	0.05	25.2
BZV79C 39	37	41	2	130	0.5	350	0.05	27.3
BZV79C 43	40	46	2	150	0.5	375	0.05	30.1
BZV79C 47	44	50	2	170	0.5	375	0.05	32.9
BZV79C 51	48	54	2	180	0.5	400	0.05	35.7
BZV79C 56	52	60	2	200	0.5	425	0.05	39.2
BZV79C 62	58	66	2.5	215	0.5	1000	0.05	43.4
BZV79C 68	64	72	2.5	240	0.5	1000	0.05	47.6
BZV79C 75	70	80	2.5	255	0.5	1000	0.05	52.5

Notes : 1. The type numbers listed have zener voltage min/max limits as shown.

2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Taiwan Semiconductor representative.

 3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an RMS value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK} .

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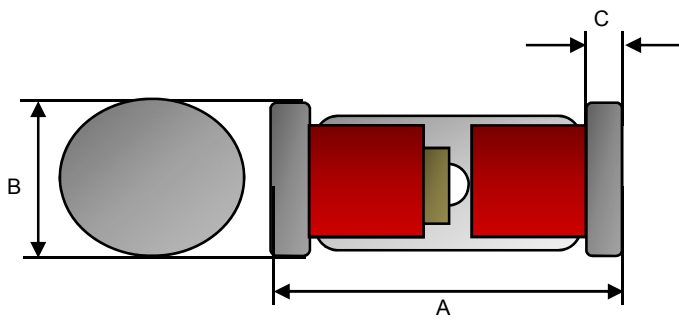
ORDERING INFORMATION					
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
BZV79Cxxx (Note1)	(Note 2)	L0	G	LL34	10K / 13" Reel
		L1			2.5K / 7" Reel

Note 1: "xxx" defines voltage from 2.4V (BZV79C2V4) to 75V (BZV79C75)

Note 2: Manufacture special control, if empty means no special control requirement.

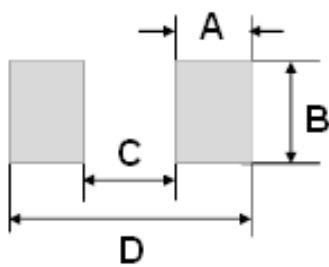
EXAMPLE					
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
BZV79C75 L0G	BZV79C75		L0	G	Green compound
BZV79C75-L0 L0G	BZV79C75	L0	L0	G	Green compound

PACKAGE OUTLINE DIMENSION



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	3.30	3.70	0.130	0.146
B	1.40	1.60	0.055	0.063
C	0.20	0.50	0.008	0.020

SUGGEST PAD LAYOUT



DIM.	Unit (mm)		Unit (inch)	
	Typ.		Typ.	
A	1.25		0.049	
B	2.00		0.079	
C	2.50		0.098	
D	5.00		0.197	

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