

Chip Zener Diode

Power Dissipation: 500 m/W
Zener Voltage: 2.0V ~ 36V



Surface Mount Zener Diode
Size: SZD55C - Series

Feature

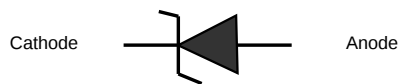
This diode is also available in other case styles including the 1206 case with the type designation SZD55C-Series

Mechanical Data

Case: 1206
 Weight: Approx 10 mg
 Marking: Cathode band

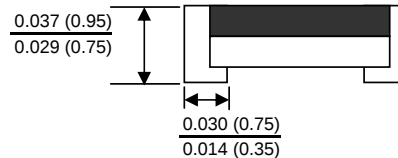
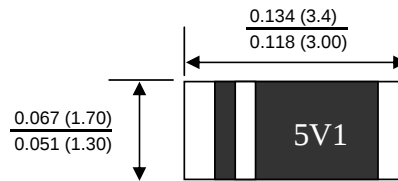
Device Marking

Device has been marked indelibly and legibly As follow:

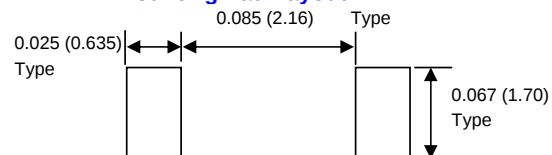


Dimensions

Dimension in inches and (millimeters)



Mounting Pad Layout

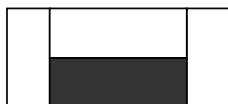


Device outlook

Front side



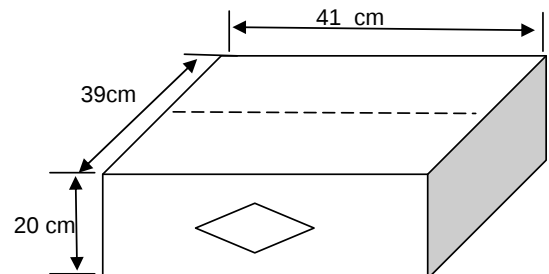
Back side



Package

Quantity: 5K/Reel
 Inside Box: 50K/Box x 6
 Carton: 300K / Ctn.

Carton size

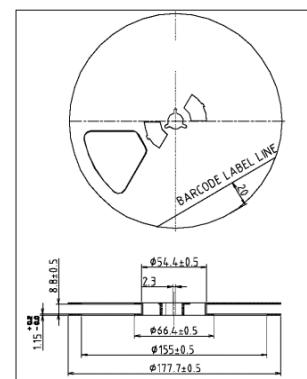


How to order

S ZD 55 C 5V1 =
 I II III IV V VI

- I. Brand name
- II. Zener Diode
- III. Power : 0.5W
- IV. Tolerance:
 C: $\pm 5\%$
 B: $\pm 2\%$
- V. Voltage
- VI (1206)

Reel Size:



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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_{amb} = 25°C, unless otherwise specified)

Parameter	Symbol	Value	Unit
Power Dissipation	P _{tot}	500	mW
Junction Temperature	T _j	175	°C
Storage Temperature Range	T _{stg}	-65 to +175	°C
Thermal Resistance Junction to Ambient Air	R _{thJA}	400	°C/W

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Forward Voltage I _F =200mA	V _F	1.5	V

ELECTRICAL CHARACTERISTICS

Part Number (1206 ±5%)	Marking Code	Nominal Zener Voltage		Nominal Zener Voltage				Nominal Zener Voltage	
		V _Z @ I _{ZT}		Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R	
		Min V	Max V	Ω	mA	Ω	mA	μA	V
SZD55C2V0	2V0	1.90	2.10	85	5	600	1	100	1
SZD55C2V2	2V2	2.09	2.31	85	5	600	1	75	1
SZD55C2V4	2V4	2.28	2.52	85	5	600	1	50	1
SZD55C2V7	2V7	2.57	2.84	85	5	600	1	10	1
SZD55C3V0	3V0	2.85	3.15	85	5	600	1	4	1
SZD55C3V0	3V3	3.14	3.47	85	5	600	1	4	1
SZD55C3V6	3V6	3.42	3.78	85	5	600	1	2	1
SZD55C3V9	3V9	3.71	4.10	85	5	600	1	2	1
SZD55C4V3	4V3	4.09	4.52	80	5	600	1	1	1
SZD55C4V7	4V7	4.47	4.94	70	5	600	1	0.5	1
SZD55C5V1	5V1	4.85	5.36	50	5	550	1	0.1	1
SZD55C5V6	5V6	5.32	5.88	30	5	450	1	0.1	1
SZD55C6V2	6V2	5.89	6.51	10	5	200	1	0.1	2
SZD55C6V8	6V8	6.46	7.14	8	5	150	1	0.1	3
SZD55C7V5	7V5	7.13	7.88	7	5	50	1	0.1	5
SZD55C8V2	8V2	7.79	8.61	7	5	50	1	0.1	6.1
SZD55C9V1	9V1	8.65	9.56	10	5	50	1	0.1	6.8
SZD55C10	10	9.50	10.50	15	5	70	1	0.1	7.5
SZD55C11	11	10.45	11.55	20	5	70	1	0.1	8.2
SZD55C12	12	11.40	12.60	20	5	90	1	0.1	9
SZD55C13	13	12.35	13.65	26	5	110	1	0.1	9.7
SZD55C15	15	14.25	15.75	30	5	110	1	0.1	11
SZD55C16	16	15.20	16.80	40	5	170	1	0.1	12
SZD55C18	18	17.10	19.80	50	5	170	1	0.1	14
SZD55C20	20	19.00	21.00	55	5	220	1	0.1	15
SZD55C22	22	20.92	23.10	55	5	220	1	0.1	17
SZD55C24	24	22.80	25.20	80	5	220	1	0.1	18
SZD55C27	27	25.65	28.35	80	5	220	1	0.1	20
SZD55C30	30	28.50	31.50	80	5	220	1	0.1	22
SZD55C33	33	31.35	34.65	80	5	220	1	0.1	24
SZD55C36	36	34.20	37.80	80	5	220	1	0.1	27

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Typical Characteristics ($T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified)

Fig1. Thermal Resistance vs. Lead Length

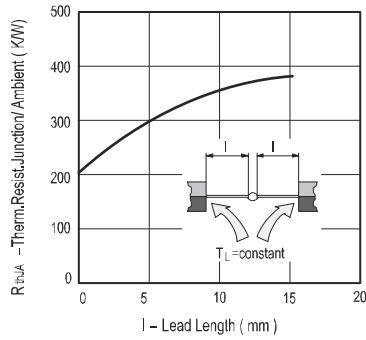


Fig 4. Typical Change of Working Voltage vs. Junction Temperature

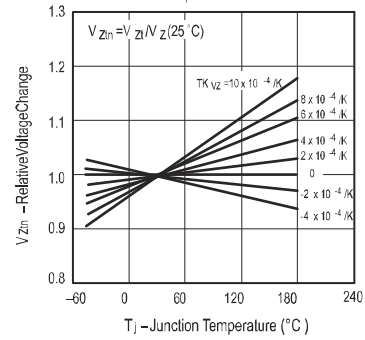


Fig2. Total Power Dissipation vs. Ambient Temperature

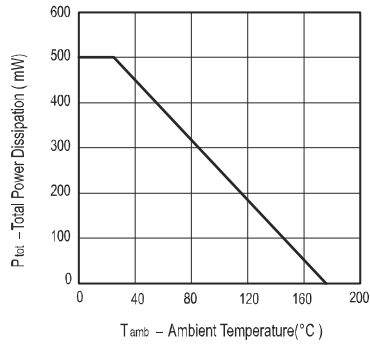


Fig5. Temperature Coefficient of Vz vs. Z-Voltage

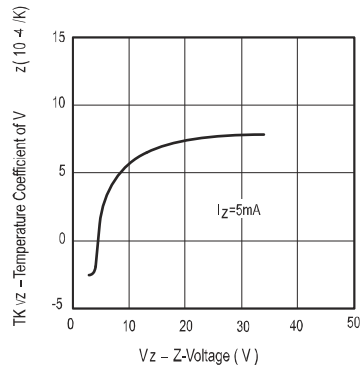


Fig3. Typical Change of Working Voltage under Operating Conditions at $T_{amb}=25^{\circ}\text{C}$

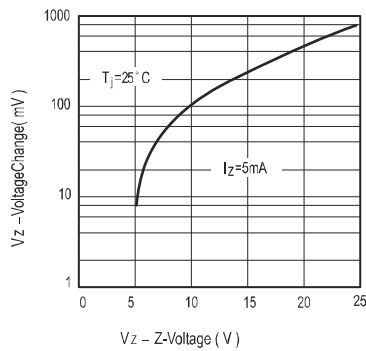
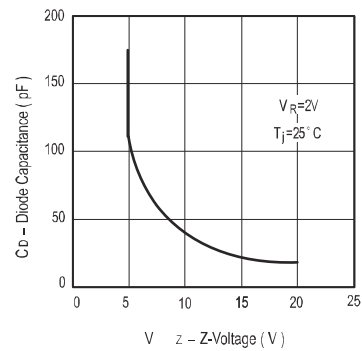


Fig 6. Diode Capacitance vs. Z-Voltage



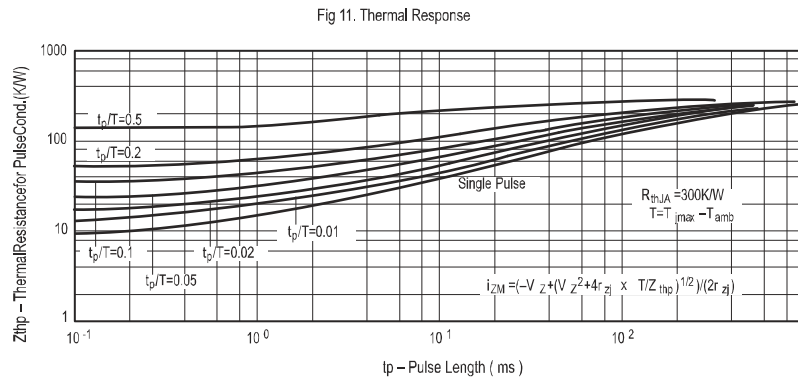
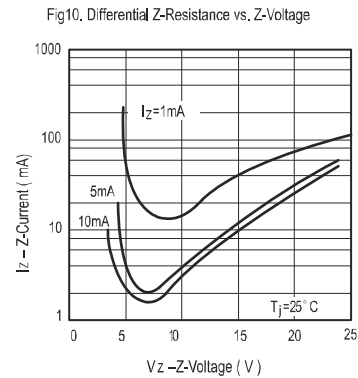
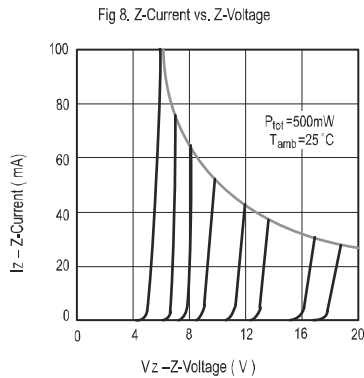
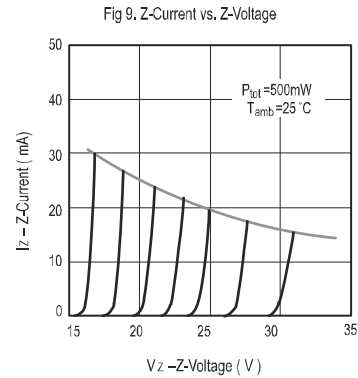
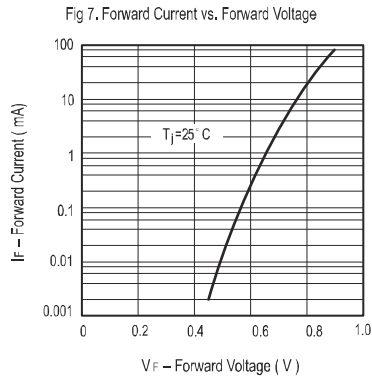
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Suggested thermal profiles for soldering processes

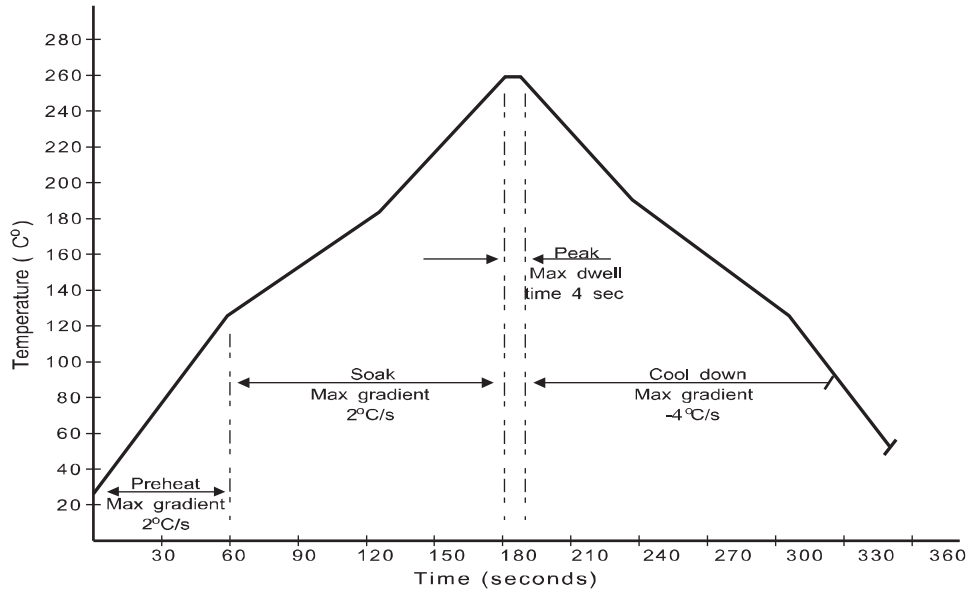


Fig.1 Typical Wave Soldering Thermal Profile

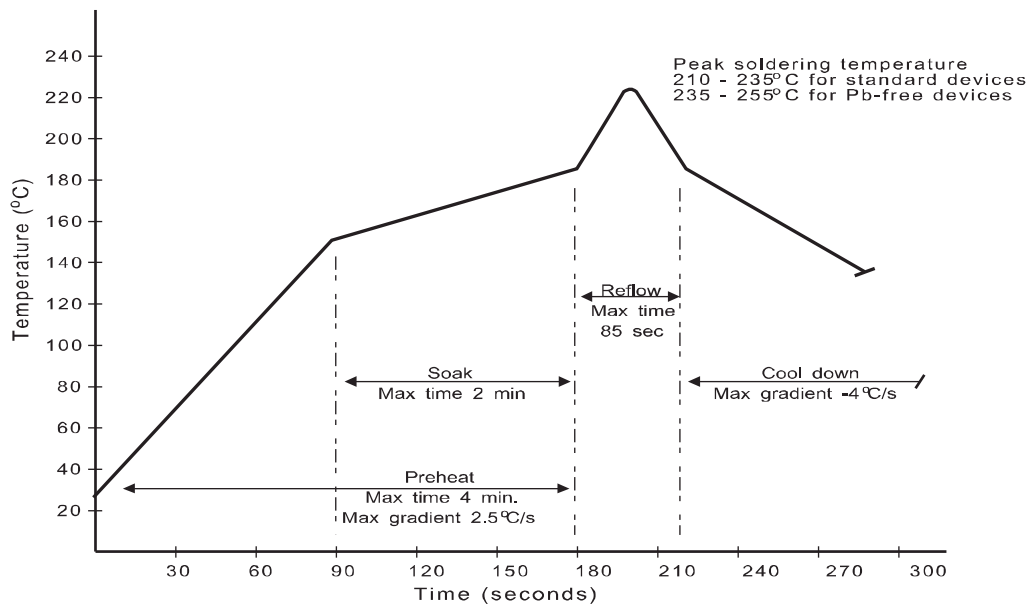


Fig.2 Typical IR Reflow Soldering Thermal Profile