

Zener Diodes

TGZF5913 - TGZF5956

Features

- Complete voltage range 3.3 to 200 V
- Withstands large surge stresses
- High surge current rating
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards



Mechanical Data

- Case: SOD-123FL molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Polarity: Color band denotes cathode end

Maximum Ratings (@T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Power dissipation at T _{amb} ≤ 50°C	P _{tot}	1.5	W
Forward voltage @ I _F = 200mA	V _F	1.2	V
Junction temperature	T _J	-55 ~ +150	°C
Storage temperature range	T _{STG}	-55 ~ +150	°C

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Electrical Characteristics (@T_A = 25°C unless otherwise specified)

Part Number	Device marking code	Zener voltage			Test current	Dynamic impedance	Knee current	Knee impedance	Reverse current	Reverse voltage	Max. DC current
		V _Z (V)			I _{ZT}	Z _{ZT}	I _{ZK}	Z _{ZK}	I _{R(Max.)}	V _R	I _{ZM}
		Min	Typ	Max	mA	Ω	mA	Ω	μA	V	mA
TGZF5913	5913	3.14	3.3	3.47	113.6	10.0	1	500	100	1.0	455
TGZF5914	5914	3.42	3.6	3.78	104.2	9.0	1	500	75	1.0	416
TGZF5915	5915	3.71	3.9	4.10	96.1	7.5.0	1	500	25	1.0	385
TGZF5916	5916	4.09	4.3	4.52	87.2	6.0	1	500	5	1.0	349
TGZF5917	5917	4.47	4.7	4.94	79.8	5.0	1	500	5	1.5	319
TGZF5918	5918	4.85	5.1	5.36	73.5	4.0	1	350	5	2.0	294
TGZF5919	5919	5.32	5.6	5.88	66.9	2.0	1	250	5	3.0	268
TGZF5920	5920	5.89	6.2	6.51	60.5	2.0	1	200	10	2.0	242
TGZF5921	5921	6.46	6.8	7.14	55.1	2.5	1	200	5	5.2	221
TGZF5922	5922	7.13	7.5	7.88	50.0	3.0	0.5	400	5	6.0	200
TGZF5923	5923	7.79	8.2	8.61	45.7	3.5	0.5	400	5	6.5	183
TGZF5924	5924	8.65	9.1	9.56	41.2	4.0	0.5	500	5	7.0	165
TGZF5925	5925	9.50	10	10.50	37.5	4.5	0.25	500	5	8.0	150
TGZF5926	5926	10.45	11	11.55	34.1	5.5	0.25	550	1	8.4	136
TGZF5927	5927	11.40	12	12.60	31.2	6.5	0.25	550	1	9.1	125
TGZF5928	5928	12.35	13	13.65	28.8	7.0	0.25	550	1	9.9	115
TGZF5929	5929	14.25	15	15.75	25.0	9.0	0.25	600	1	11.4	100
TGZF5930	5930	15.20	16	16.80	23.4	10.0	0.25	600	1	12.2	94
TGZF5931	5931	17.10	18	18.90	20.8	12.0	0.25	650	1	13.7	83
TGZF5932	5932	19.00	20	21.00	18.7	14.0	0.25	650	1	15.2	75
TGZF5933	5933	20.90	22	23.10	17.0	17.5	0.25	650	1	16.7	68
TGZF5934	5934	22.80	24	25.20	15.6	19.0	0.25	700	1	18.2	63
TGZF5935	5935	25.65	27	28.35	13.9	23.0	0.25	700	1	20.6	56
TGZF5936	5936	28.50	30	31.50	12.5	28.0	0.25	750	1	22.8	50
TGZF5937	5937	31.35	33	34.65	11.4	33.0	0.25	800	1	25.1	45
TGZF5938	5938	34.20	36	37.80	10.4	38.0	0.25	850	1	27.4	42
TGZF5939	5939	37.05	39	40.95	9.6	45.0	0.25	900	1	29.7	38
TGZF5940	5940	40.85	43	45.15	8.7	53.0	0.25	950	1	32.7	35

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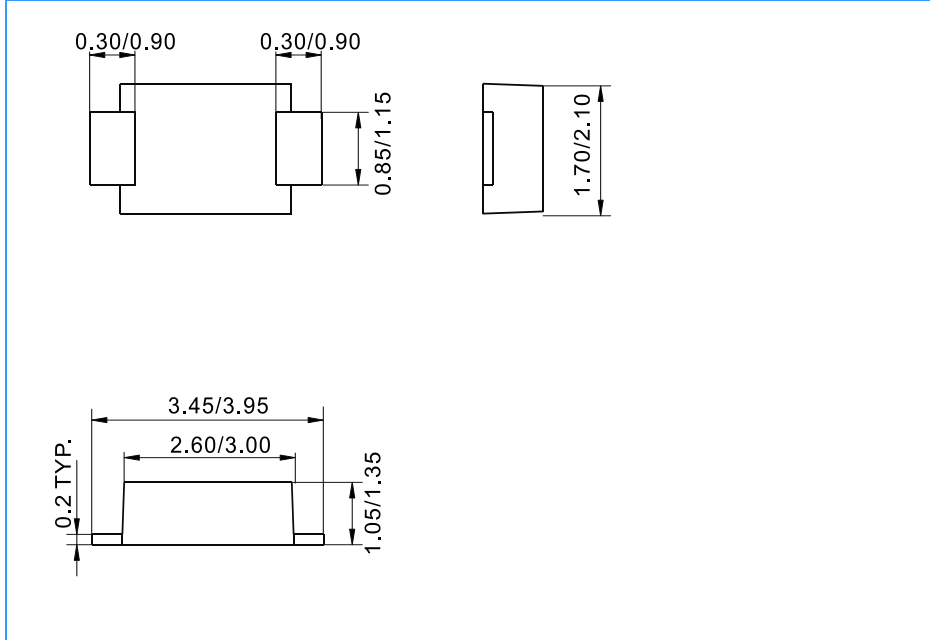
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Part Number	Device marking code	Zener voltage			Test current	Dynamic impedance	Knee current	Knee impedance	Reverse current	Reverse voltage	Max. DC current
		V_Z (V)			I_{ZT}	Z_{ZT}	I_{ZK}	Z_{ZK}	$I_{R(Max.)}$	V_R	I_{ZM}
		Min	Typ	Max	mA	Ω	mA	Ω	μA	V	mA
TGZF5941	5941	44.65	47	49.35	8.0	67	0.25	1000	1	35.8	32
TGZF5942	5942	48.45	51	53.55	7.3	70	0.25	1100	1	38.8	29
TGZF5943	5943	53.20	56	58.80	6.7	86	0.25	1300	1	42.6	27
TGZF5944	5944	58.90	62	65.10	6.0	100	0.25	1500	1	47.1	24
TGZF5945	5945	64.60	68	71.40	5.5	120	0.25	1700	1	51.2	22
TGZF5946	5946	71.25	75	78.75	5.0	140	0.25	2000	1	56.0	20
TGZF5947	5947	77.90	82	86.10	4.6	160	0.25	2500	1	62.2	18
TGZF5948	5948	86.45	91	95.55	4.1	200	0.25	3000	1	69.2	16
TGZF5949	5949	95.00	100	105.00	3.7	250	0.25	3100	1	76.0	15
TGZF5950	5950	104.50	110	115.50	3.4	300	0.25	4000	1	83.6	13
TGZF5951	5951	114.00	120	126.00	3.1	380	0.25	4500	1	91.2	12
TGZF5952	5952	123.50	130	136.50	2.9	450	0.25	5000	1	98.8	11
TGZF5953	5953	142.50	150	157.50	2.5	600	0.25	6000	1	114.0	10
TGZF5954	5954	152.00	160	168.00	2.3	700	0.25	6500	1	121.6	9
TGZF5955	5955	171.00	180	189.00	2.1	900	0.25	7000	1	136.8	8
TGZF5956	5956	190.00	200	210.00	1.9	1200	0.25	8000	1	152.0	7

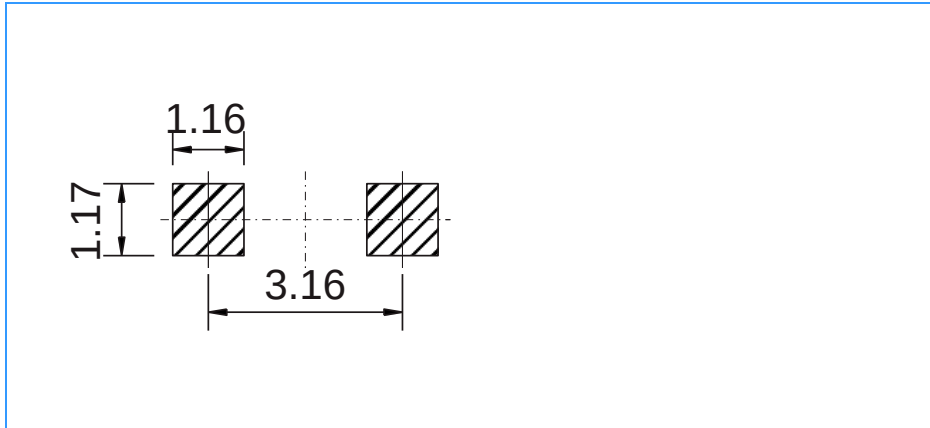
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Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Package	Shipping Quantity
TGZF5913 - TGZF5956	SOD-123FL	10000 / Tape & Reel