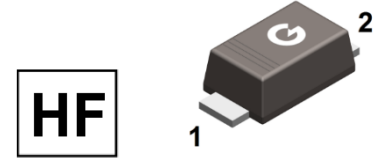


Zener Diodes

TGZF3V3C - TGZF200C

Features

- Clip zener diodes
- Silicon planar based design for zener die
- Low leakage current
- Low profile surface mountable package
- High temperature solder ability for terminals: 260°C @ 10s
- 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 (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Power Dissipation @ $T_A = 25^\circ\text{C}$	P_{TOT}	1	W
Forward Voltage @ $I_F = 200\text{mA}$	V_F	1.2	V
Typical Thermal Resistance	$R_{\theta JA}$	180	$^\circ\text{C/W}$
	$R_{\theta JC}$	23	
	$R_{\theta JL}$	15	
Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Zener Diodes

TGZF3V3C - TGZF200C

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

Type	Device Marking Code	Zener Voltage		Test Curren	Differential Resistance		Temperature Coefficient		Maximum Reverse Leakage	
		V _Z @I _{ZT}		@I _{ZT}	rdif @I _{ZT}		V _Z @I _Z		I _R	V _R
		V		mA	Ω		% / °C		μA	V
		Min	Max		Typ	Max	Min	Max	Max	
TGZF3V3C	W4	3.1	3.5	100	4.0	8.0	-0.14	-0.04	100	1.0
TGZF3V4C	XF	3.2	3.6	100	4.0	8.0	-0.14	-0.04	100	1.0
TGZF3V6C	W5	3.4	3.8	100	4.0	8.0	-0.14	-0.04	100	1.0
TGZF3V9C	W6	3.7	4.1	100	4.0	8.0	-0.14	-0.04	50	1.0
TGZF4V3C	W7	4.0	4.6	100	4.0	7.0	-0.12	-0.02	25	1.0
TGZF4V7C	W8	4.4	5.0	100	3.0	7.0	-0.1	0	10	1.0
TGZF5V1C	W9	4.8	5.4	100	3.0	6.0	-0.08	0.2	5.0	1.0
TGZF5V6C	WA	5.2	6.0	100	2.0	4.0	-0.04	0.04	10	2.0
TGZF6V2C	WB	5.8	6.6	100	2.0	3.0	-0.01	0.06	10	2.0
TGZF6V8C	WC	6.4	7.2	100	1.0	3.0	0	0.07	10	3.0
TGZF7V5C	WD	7.0	7.9	100	1.0	2.0	0	0.07	50	3.0
TGZF8V2C	WE	7.7	8.7	100	1.0	2.0	0.03	0.08	10	3.0
TGZF9V1C	WF	8.5	9.6	50	2.0	4.0	0.03	0.08	10	5.0
TGZF10C	WG	9.4	10.6	50	2.0	4.0	0.05	0.09	7.0	7.5
TGZF11C	WH	10.4	11.6	50	4.0	7.0	0.05	0.1	4.0	8.2
TGZF12C	WI	11.4	12.7	50	4.0	7.0	0.05	0.1	3.0	9.0
TGZF13C	WK	12.4	14.4	50	5.0	10	0.05	0.1	2.0	10
TGZF15C	WL	13.8	15.6	50	5.0	10	0.05	0.1	1.0	11
TGZF16C	WM	15.3	17.1	25	6.0	15	0.06	0.11	1.0	12
TGZF17C	WJ	16.5	17.8	25	6.0	15	0.06	0.11	1.0	13
TGZF18C	WN	16.8	19.1	25	6.0	15	0.06	0.11	1.0	13
TGZF20C	WO	18.8	21.2	25	6.0	15	0.06	0.11	1.0	15
TGZF22C	WP	20.8	23.3	25	6.0	15	0.06	0.11	1.0	16
TGZF24C	WR	22.8	25.6	25	7.0	15	0.06	0.11	1.0	18
TGZF27C	WS	25.1	28.9	25	7.0	15	0.06	0.11	1.0	20

Zener Diodes

TGZF3V3C - TGZF200C

Type	Device Marking Code	Zener Voltage		Test Curren	Differential Resistance		Temperature Coefficient		Maximum Reverse Leakage	
		$V_Z @ I_{ZT}$		@ I_{ZT}	$r_{dif} @ I_{ZT}$		$V_Z @ I_Z$		I_R	V_R
		V		mA	Ω		%/°C		μA	V
		Min	Max		Typ	Max	Min	Max	Max	
TGZF30C	WT	28	32	25	8.0	15	0.06	0.11	1.0	22
TGZF33C	WU	31	35	25	8.0	15	0.06	0.11	1.0	24
TGZF36C	WW	34	38	10	21	40	0.06	0.11	1.0	27
TGZF39C	WX	37	41	10	21	40	0.06	0.11	1.0	30
TGZF43C	WY	40	46	10	24	45	0.07	0.12	1.0	33
TGZF47C	WZ	44	50	10	24	45	0.07	0.12	1.0	36
TGZF51C	X1	48	54	10	25	60	0.07	0.12	1.0	39
TGZF56C	X2	52	60	10	25	60	0.07	0.12	1.0	43
TGZF62C	X3	58	66	10	25	80	0.08	0.13	1.0	47
TGZF68C	X4	64	72	10	25	80	0.08	0.13	1.0	51
TGZF75C	X5	70	79	10	30	100	0.08	0.13	1.0	56
TGZF82C	X6	77	87	10	30	100	0.08	0.13	1.0	62
TGZF91C	X7	85	96	5.0	60	200	0.09	0.13	1.0	68
TGZF100C	X8	94	106	5.0	60	200	0.09	0.13	1.0	75
TGZF110C	X9	105	115	5.0	60	200	0.09	0.13	1.0	83
TGZF120C	XA	115	125	5.0	60	200	0.09	0.13	1.0	90
TGZF130C	XB	125	135	5.0	60	200	0.09	0.13	1.0	98
TGZF150C	XD	144	156	5.0	60	200	0.09	0.13	1.0	113
TGZF160C	XG	154	166	5.0	60	200	0.09	0.13	1.0	121
TGZF200C	XE	192	208	5.0	60	200	0.09	0.13	1.0	151

Zener Diodes

TGZF3V3C - TGZF200C

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG.1 – TYPICAL FORWARD CHARACTERISTIC

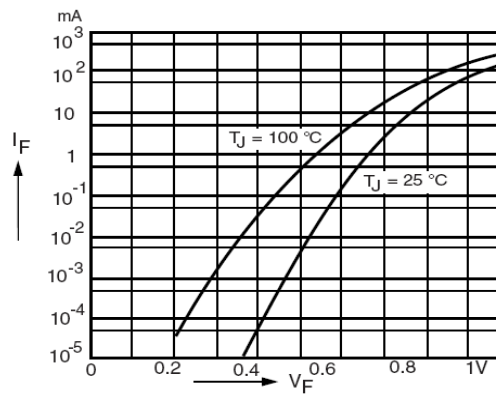
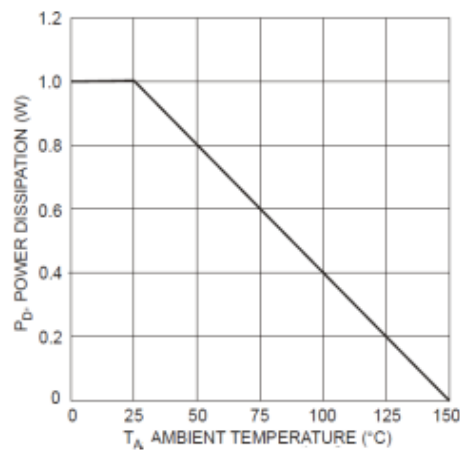


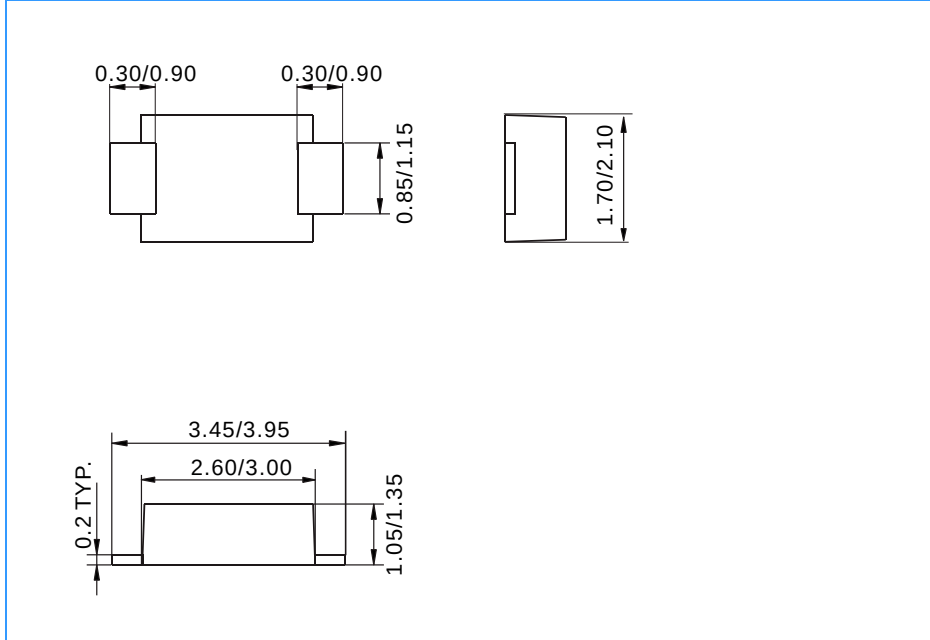
FIG.2 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE



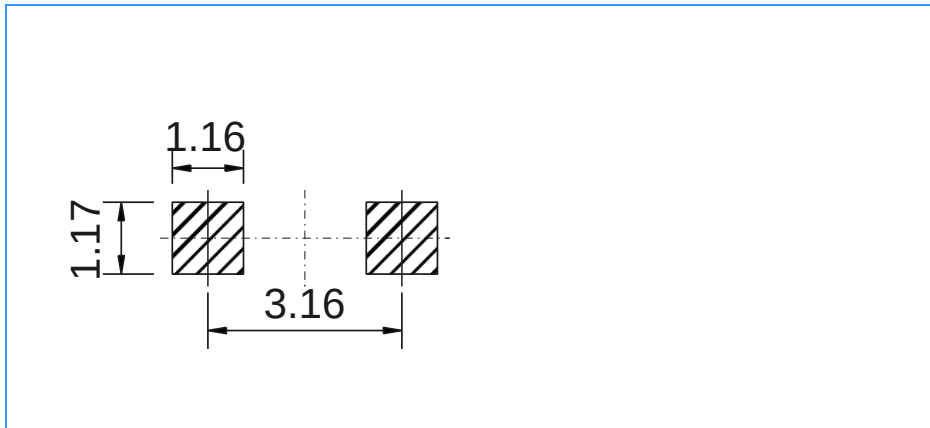
Zener Diodes

TGZF3V3C - TGZF200C

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Package	Shipping Quantity
TGZF3V3C - TGZF200C	SOD-123FL	10000 pcs / Tape & Reel