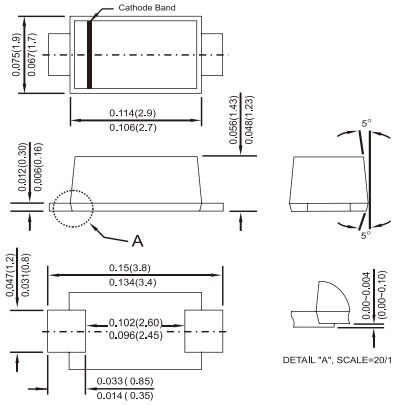
TAIWAN SEMICONDUCTOR

RoHS COMPLIANCE

BZD17C SERIES

0.8 Watts Voltage Regulator Diodes

Sub SMA



Dimensions in inches and (millimeters)

Features

- ✧ Silicon zener diodes
- ✧ Low profile surface-mount package
- ✧ Zener and surge current specification
- ✧ Low leakage current
- ✧ Excellent stability
- ✧ High temperature soldering: 260°C / 10 sec at terminals
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ✧ Case: Sub SMA Plastic
- ✧ Terminal : Pure tin plated lead free,
- ✧ Packaging method: refer to package code
- ✧ Marking code: as table
- ✧ Weight: 0.01 grams

Marking Diagram

XX = Specific Device Code
G = Green Compound
Y = Year
M = Work Month

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Type Number		Symbol	Value	Units
Forward Voltage	@ IF = 0.2A	V_F	1.2	Volts
Power Dissipation	TL=80°C TA=25°C (Note 1)	P_{tot}	2.3 0.8	Watts
Non-Repetitive Peak Pulse Power Dissipation 100us square pulse (Note 2)		P_{ZSM}	300	Watts
Thermal Resistance Junction to Ambient Air (Note 1)		$R_{\theta JA}$	180	°C/W
Thermal Resistance Junction to Lead		$R_{\theta JL}$	30	°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-65 to + 175	°C

Notes: 1. Mounted on Epoxy-Glass PCB with 3 x 3 mm Cu pads (≧40um thick)

2. T_J=25°C Prior to Surge.

RATINGS AND CHARACTERISTIC CURVES (BZD17C SERIES)

FIG.1- FORWARD CURRENT vs FORWARD VOLTAGE

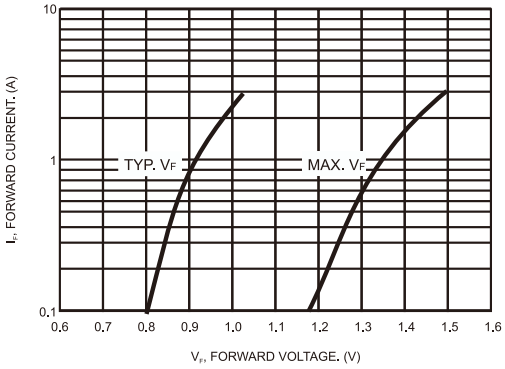


FIG.2- TYP. DIODE CAPACITANCE vs REVERSE VOLTAGE

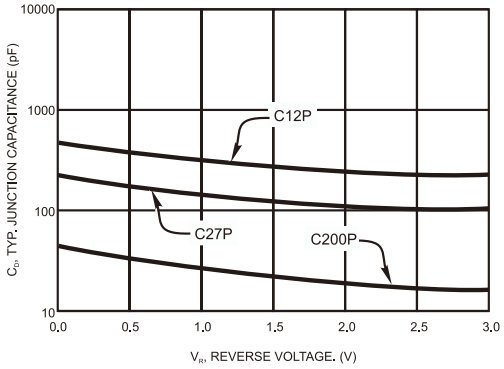
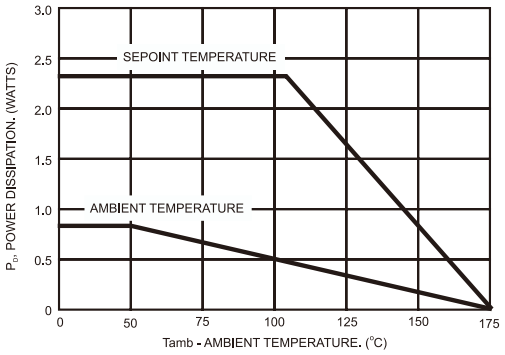


FIG.3- POWER DISSIPATION vs AMBIENT TEMPERATURE



ELECTRICAL CHARACTERISTICS (T_A =25℃ unless otherwise noted)

Device	Device Marking Code	Zener Voltage (Note 1)		Differential Resistance		Temperature Coefficient		Test Current	Reverse Current@ Reverse Voltage	
		V_Z @ I_{ZT}		rdif @ I_Z		$ALPH_Z$ @ I_Z		I_{ZT}	I_R	V_R
		V		Ω		% /℃		mA	uA	V
		Min.	Max.	typ	Max.	Min.	Max.		Max.	
BZD17C11P	J2	10.4	11.6	4	7	0.05	0.10	50	4	8.2
BZD17C12P	J3	11.4	12.7	4	7	0.05	0.10	50	3	9.1
BZD17C13P	J4	12.4	14.1	5	10	0.05	0.10	50	2	10
BZD17C15P	J5	13.8	15.6	5	10	0.05	0.10	25	1	11
BZD17C16P	J6	15.3	17.1	6	15	0.06	0.11	25	1	12
BZD17C18P	J7	16.8	19.1	6	15	0.06	0.11	25	1	13
BZD17C24P	K0	22.8	25.6	7	15	0.06	0.11	25	1	18
BZD17C27P	K1	25.1	28.9	7	15	0.06	0.11	25	1	20
BZD17C33P	K3	31	35	8	15	0.06	0.11	25	1	24
BZD17C36P	K4	34	38	21	40	0.06	0.11	10	1	27
BZD17C39P	K5	37	41	21	40	0.06	0.11	10	1	30
BZD17C43P	K6	40	46	24	45	0.07	0.12	10	1	33
BZD17C47P	K7	44	50	24	45	0.07	0.12	10	1	36
BZD17C51P	K8	48	54	25	60	0.07	0.12	10	1	39
BZD17C62P	L0	58	66	25	80	0.08	0.13	10	1	47
BZD17C68P	L1	64	72	25	80	0.08	0.13	10	1	51
BZD17C75P	L2	70	79	30	100	0.08	0.13	10	1	56
BZD17C100P	L5	94	106	60	200	0.09	0.13	4	1	75
BZD17C120P	L7	114	127	150	300	0.09	0.13	4	1	91
BZD17C180P	M1	168	191	280	450	0.09	0.13	4	1	130
BZD17C200P	M2	188	212	350	750	0.09	0.13	4	1	150
BZD17C220P	M3	208	233	430	900	0.09	0.13	4	1	160

Notes:1. Pulse test: tp ≦ 5ms.