

**SEMICONDUCTOR**

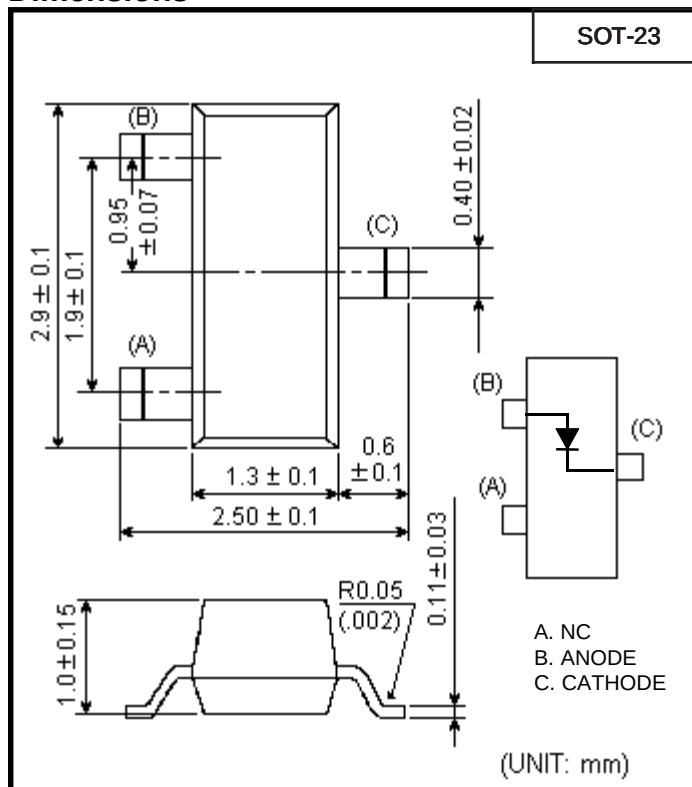
TECHNICAL SPECIFICATION

**BZX84C3V3
THRU
BZX84C47****SURFACE MOUNT ZENER DIODE****Absolute Maximun Ratings (Ta=25°C)**

Items	Symbol	Ratings	Unit
Power Dissipation	P_{TOT}	300	mW
Voltage Range	V_Z	3.3 - 47	V
Forward Voltage @ $I_f = 10$ mA	V_f	0.9	V
Rep. Peak Fwd. Current	I_{FRM}	250	mA
Junction Temp.	T_j	-55 to 125	°C
Storage Temp.	T_{STG}	-55 to 150	°C

Mechanical Data

Items	Materials
Package	SOT-23
Lead Frame	42 Alloy
Lead Finish	Solder Plating
Bond Wire	Au
Mold Resin	Epoxy
Chip	Silicon

Dimensions**Electrical Characteristics (Ta=25°C)**

TYPE	ZENER VOLTAGE $V_Z(V)^*$ at $I_Z = 5$ mA		DIFFERENTIAL RESISTANCE $r_{diff} (ohm)$ at $I_Z = 5$ mA		DIFFERENTIAL RESISTANCE $r_{diff} (ohm)$ at $I_Z = 1$ mA		TEMPERATURE COEFFICIENT $S_z (mV/K)$ at $I_Z = 5$ mA			REVERSE CURRENT	
	min.	max.	typ.	max.	typ.	max.	min.	typ.	max.	$V_R (V)$	$I_R (\mu A)$
BZX84C3V3	3.10	3.50	85	95	350	600	-3.5	-2.4	0	1	5
C3V6	3.40	3.80	85	90	375	600	-3.5	-2.4	0	1	5
C3V9	3.70	4.10	85	90	400	600	-3.5	-2.5	0	1	3
C4V3	4.00	4.60	85	90	410	600	-3.5	-2.5	0	1	3
C4V7	4.40	5.00	50	80	425	500	-3.5	-1.4	0.2	2	3
C5V1	4.80	5.40	40	60	400	480	-2.7	-0.8	1.2	2	2
C5V6	5.20	6.00	15	40	80	400	-2.0	1.2	2.5	2	1
C6V2	5.80	6.60	6	10	40	150	0.4	2.3	3.7	4	3
C6V8	6.40	7.20	6	15	30	80	1.2	3.0	4.5	4	2
C7V5	7.00	7.90	6	15	30	80	2.5	4.0	5.3	5	1
C8V2	7.70	8.70	6	15	40	80	3.2	4.6	6.2	5	0.7
C9V1	8.50	9.60	6	15	40	100	3.8	5.5	7.0	6	0.5
C10	9.40	10.60	8	20	50	150	4.5	6.4	8.0	7	0.2
C11	10.40	11.60	10	20	50	150	5.4	7.4	9.0	8	0.1

TYPE	ZENER VOLTAGE Vz(V)* at Iz = 5mA		DIFFERENTIAL RESISTANCE rdiff (ohm) at Iz = 5mA		DIFFERENTIAL RESISTANCE rdiff (ohm) at Iz = 1mA		TEMPERATURE COEFFICIENT Sz (mV/K) at Iz = 5mA			REVERSE CURRENT	
	min.	max.	typ.	max.	typ.	max.	min.	typ.	max.	VR (V)	IR (uA)
BZX84C12	11.40	12.70	10	25	50	150				8	0.1
C13	12.40	14.10	10	30	50	170	7.0	9.4	11.0	8	0.1
C15	13.80	15.60	10	30	50	200	9.2	11.4	13.0	10.5	0.05
C16	15.30	17.10	10	40	50	200	10.4	12.4	14.0	11.2	0.05
C18	16.80	19.10	10	45	50	225	12.4	14.4	16.0	12.6	0.05
C20	18.80	21.20	15	55	60	225	14.4	16.4	18.0	14	0.05
C22	20.80	23.30	20	55	60	250	16.4	18.4	20.0	15.4	0.05
C24	22.80	25.60	25	70	60	250	18.4	20.4	22.0	16.8	0.05
	at Iz = 2mA		at Iz = 2mA		at Iz = 0.5mA		at Iz = 2mA				
BZX84C27	25.10	28.90	25	80	65	300	21.4	23.4	25.3	18.9	0.05
C30	28.00	32.00	30	80	70	300	24.4	26.6	29.4	21	0.05
C33	31.00	35.00	35	80	75	325	27.4	29.7	33.4	23.1	0.05
C36	34.00	38.00	35	90	80	350	30.4	33.0	37.4	25.2	0.05
C39	37.00	41.00	40	130	80	350	33.4	36.4	41.2	27.3	0.05
C43	40.00	46.00	45	150	85	375	37.6	41.2	46.6	30.1	0.05
C47	44.00	50.00	50	170	85	375	42.0	46.1	51.8	32.9	0.05