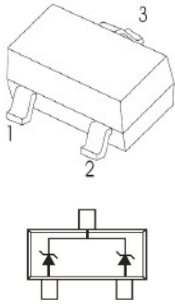


SOT-23

SOT-23 贴片塑封稳压二极管
SOT-23 Plastic-Encapsulate Zener Diode



特征 Features

- 双共阴极稳压二极管; Dual zeners common cathode configuration
- 最大功率耗散 300mW; Power Dissipation of 300mW
- 高稳定性和可靠性。High Stability and High Reliability

机械数据 Mechanical Data

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25°C 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
功率消耗 Power Dissipation.(Note 1)	Pd	300	mW
正向压降 Forward Voltage @IF=10mA.(Note 2)	Vf	0.9	V
存储温度 Storage temperature range	Ts	-65-+150	°C
Thermal resistance junction to ambient air Warmewider stand Sperrschicht –umgebende Luft	RthA	417	K/W

NOTES:

- 1) Valid provided that device terminals are kept at ambient temperature.
- 2) Test with pulse, period=5ms, pulse width=300us.
- 3) f=1KHz

电特性 (TA = 25°C 除非另有规定)

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Type Number	Marking Code	Zener Voltage Range (Note 2)	Maximum Zener Impedance (Note3)		Typical Temperature Coefficient	Min. Reverse Voltage (Note2)
		@ I _{ZT} = 5.0mA	Z _{ZT} @ I _{ZT} = 5.0mA	Z _{ZK} @ I _{ZK} = 1.0mA		@ I _R = 0.1μA
		V _Z (Volts)	Ohms	Ohms	T _c (%/°C)	V _R (Volts)
DZ23C2V7	KV1	2.5-2.9	83	500	-0.065	—
DZ23C3V0	KV2	2.8-3.2	95	500	-0.060	—
DZ23C3V3	KV3	3.1-3.5	95	500	-0.055	—
DZ23C3V6	KV4	3.4-3.8	95	500	-0.055	—
DZ23C3V9	KV5	3.7-4.1	95	500	-0.050	—
DZ23C4V3	KV6	4.0-4.6	95	500	-0.035	—
DZ23C4V7	KV7	4.4-5.0	78	500	-0.015	—
DZ23C5V1	KV8	4.8-5.4	60	480	+0.005	0.8
DZ23C5V6	KV9	5.2-6.0	40	400	+0.020	1.0
DZ23C6V2	KVA	5.8-6.6	10	200	+0.030	2.0
DZ23C6V8	KVB	6.4-7.2	8.0	150	+0.045	3.0
DZ23C7V5	KVC	7.0-7.9	7.0	50	+0.050	5.0
DZ23C8V2	KVD	7.7-8.7	7.0	50	+0.055	6.0
DZ23C9V1	KVE	8.5-9.6	10	50	+0.065	7.0

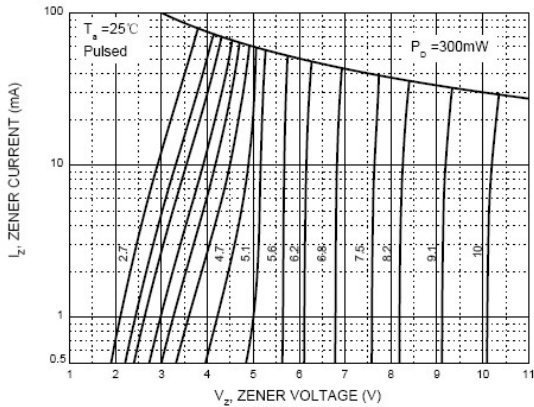
DZ23Cxx Series

Type Number	Marking Code	Zener Voltage Range (Note 2)	Maximum Zener Impedance (Note3)		Typical Temperature Coefficient	Min. Reverse Voltage (Note2)
		@ $I_{ZT} = 5.0\text{mA}$	$Z_{ZT} @ I_{ZT} = 5.0\text{mA}$	$Z_{ZK} @ I_{ZK} = 1.0\text{mA}$		
		V_Z (Volts)	Ohms	Ohms	T_C (%/°C)	V_R (Volts)
DZ23C10	KVF	9.4-10.6	15	70	+0.065	7.5
DZ23C11	KVG	10.4-11.6	20	70	+0.070	8.5
DZ23C12	KVH	11.4-12.7	20	90	+0.075	9.0
DZ23C13	KVI	12.4-14.1	25	110	+0.080	10.0
DZ23C15	KVJ	13.8-15.6	30	110	+0.080	11.0
DZ23C16	KVK	15.3-17.1	40	170	+0.090	12.0
DZ23C18	KVL	16.8-19.1	50	170	+0.090	14.0
DZ23C20	KVM	18.8-21.2	50	220	+0.090	15.0
DZ23C22	KVN	20.8-23.3	55	220	+0.090	17.0
DZ23C24	KVO	22.8-25.6	80	220	+0.090	18.0
DZ23C27	KVP	25.1-28.9	80	250	+0.090	20.0
DZ23C30	KVQ	28-32	80	250	+0.090	22.5
DZ23C33	KVR	31-35	80	250	+0.090	25.0
DZ23C36	KVS	34-38	90	250	+0.090	27.0
DZ23C39	KVT	37-41	90	300	+0.110	29.0
DZ23C43	KVU	40-46	100	700	+0.110	32.0
DZ23C47	KVV	44-50	100	750	+0.110	35.0
DZ23C51	KVW	48-54	100	750	+0.110	38.0

Notes: 1, Short duration pulse test used to minimize self-heating effect; 2, f=1KHz

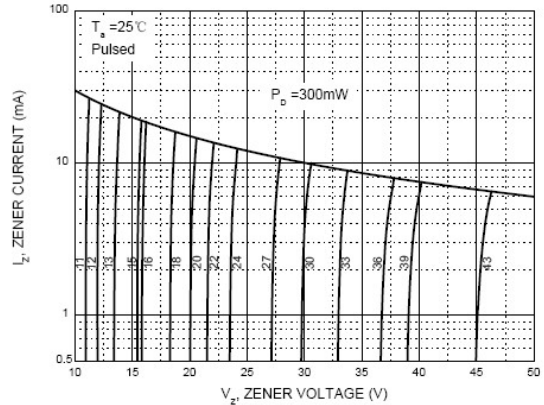
Breakdown characteristics

Zener Characteristics (V_Z Up to 10 V)

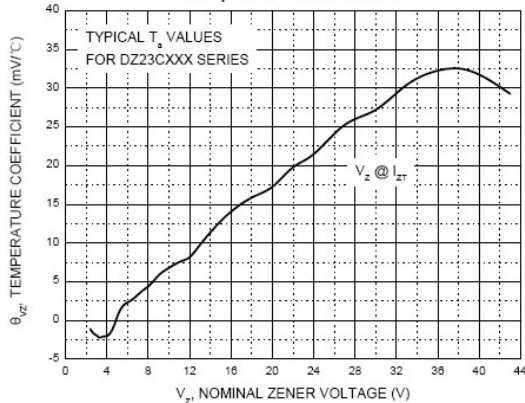


at $T_j = \text{constant}$ (pulsed)

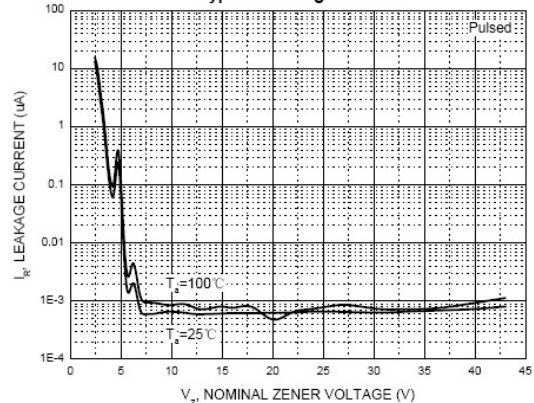
Zener Characteristics (11 V to 43 V)



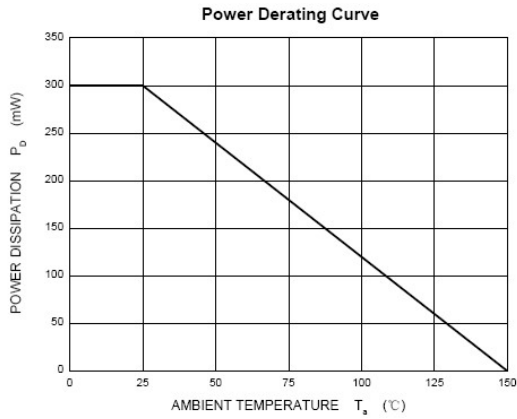
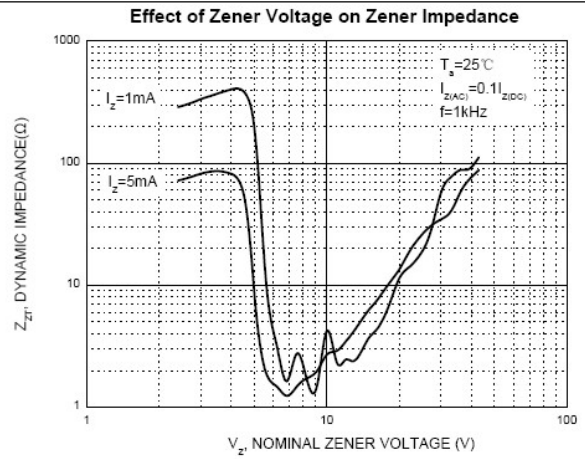
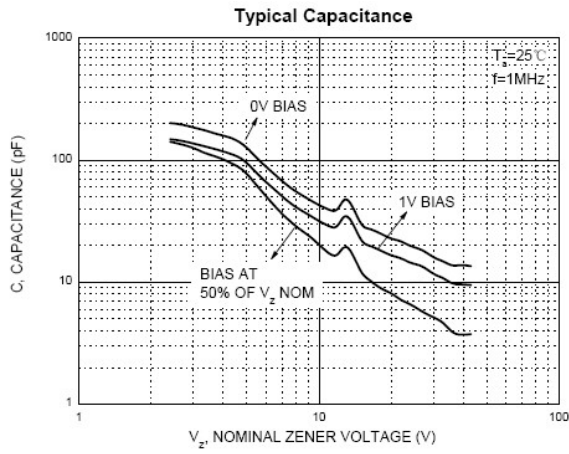
Temperature Coefficients



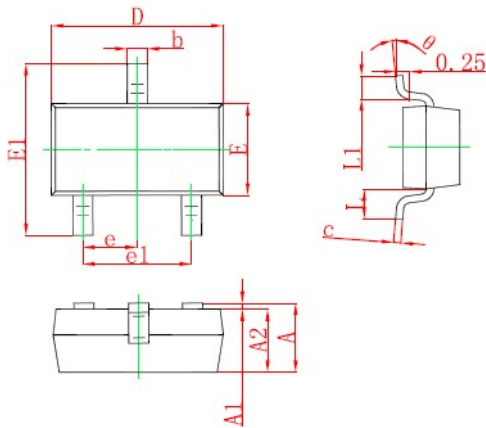
Typical Leakage Current



DZ23Cxx Series



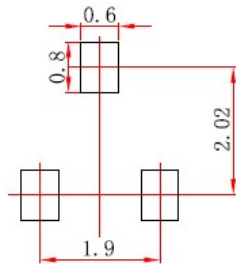
SOT-23 PACKAGE OUTLINE Plastic surface mounted package



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

焊盘设计参考 Precautions: PCB Design

Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.