

Small Signal Product

**Features**

- ◇ Surface mounted device type
- ◇ Moisture sensitivity level 1
- ◇ Low leakage current
- ◇ Pb free version and RoHS compliant
- ◇ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

**SOD-123**



**Mechanical Data**

Case : Flat lead SOD-123 small outline plastic package

Terminal : Matte tin plated, lead free, solderable  
per MIL-STD-202, method 208 guaranteed

Polarity : Indicated by cathode band

High temperature soldering guaranteed : 260°C/10 second

Weight : 9.5 mg (approximately)

**Pin Configuration**



**Maximum Ratings and Electrical Characteristics**

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	2CZ4004	2CZ4005	Units
Non-repetitive peak reverse voltage IR=100µA	$V_{RM}$	400	600	V
Reverse voltage IR=100µA	$V_R$	400	600	V
RMS reverse voltage	$V_{R(RMS)}$	280	420	V
Forward current	$I_O$	1		A
Non-repetitive peak forward surge current 8.3ms half sine wave	$I_{FSM}$	7.5		A
Power dissipation	$P_d$	350		mW
Forward voltage $I_F=1A$	$V_F$	1.1		V
Peak reverse current @ rated VR	$I_R$	5		µA
Total capacitance $V_R=4V, f=1.0MHz$	$C_{TOT}$	15		pF
Reverse recovery time $I_F=0.5A, I_R=1A, I_{RR}=0.25A$	$T_{rr}$	MIN.	MAX.	
		1	1.6	µS
Thermal resistance junction to ambient	$R_{θJA}$	357		°C/W
Operating junction temperature range	$T_J$	150		°C
Storage Temperature Range	$T_{STG}$	-55 to +150		°C

**Small Signal Product**

**RATINGS AND CHARACTERISTICS CURVES (2CZ4004 - 2CZ4005)**

Fig.1 Typical Forward Characteristics

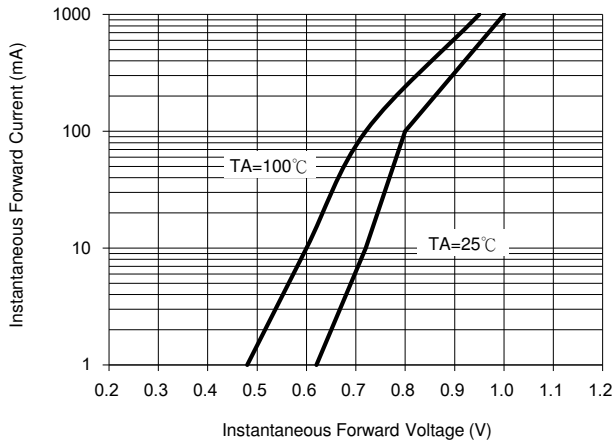


Fig. 2 Reverse Characteristics

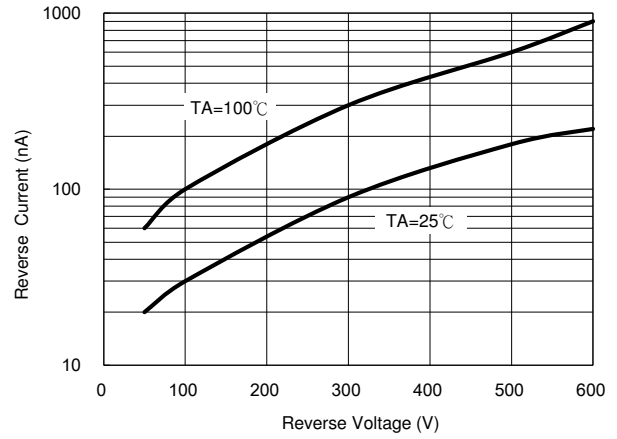


Fig. 3 Capacitance Characteristics

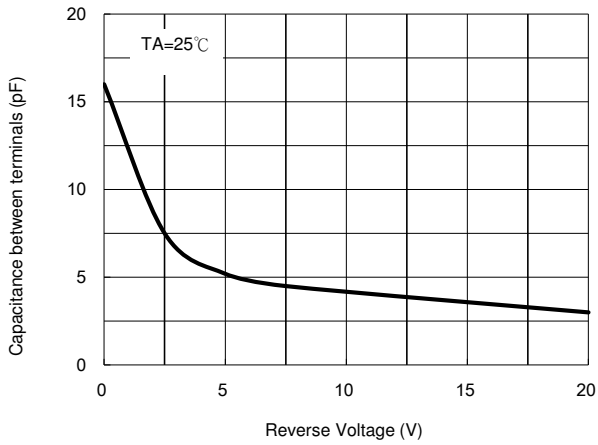
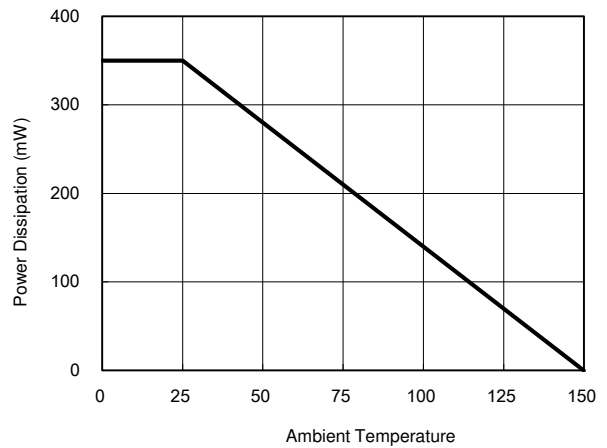


Fig.4 Power Derating Curve



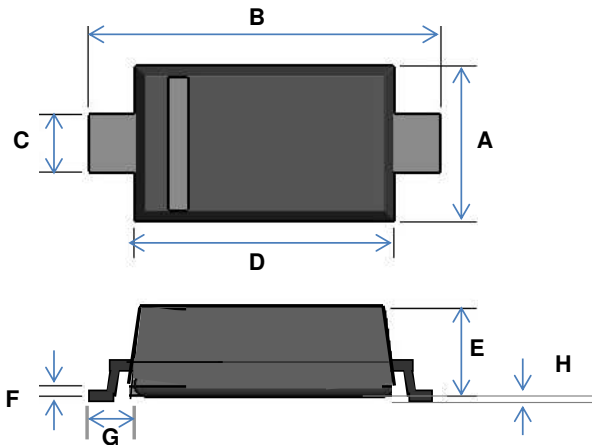
**Ordering information (Detail, example)**

Part No.	Package	Packing	Packing code	Packing code (Green)	Manufacture code
2CZ400x (Note 1)	SOD-123	3K / 7" Reel	RP	RPG	(Note 2)
2CZ4004	SOD-123	3K / 7" Reel	RP	RPG	
2CZ4004	SOD-123	3K / 7" Reel	RP	RPG	M0

Note 1 : "x" is Device Code from "4" thru "5".

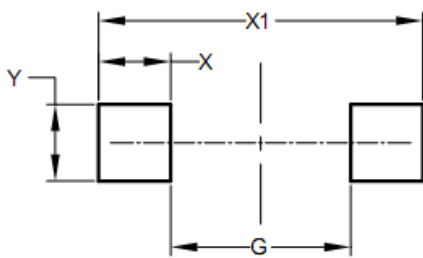
Note 2 : Manufacture special control, if empty means no special control requirement.

**Dimensions**



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	1.40	1.80	0.055	0.071
B	3.55	3.85	0.140	0.152
C	0.45	0.70	0.018	0.028
D	2.55	2.85	0.100	0.112
E	0.95	1.35	0.037	0.053
F	0.05	0.15	0.002	0.006
G	0.50 REF		0.02 REF	
H	0.00	0.10	0.000	0.004

**Suggested PAD Layout**



DIM.	Unit(mm)
	Min
G	2.25
X	0.90
X1	4.05
Y	0.95

**Marking**

Part No.	Marking
2CZ4004	Z44
2CZ4005	Z45