Brückewell

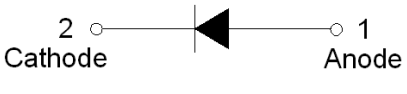
SURFACE MOUNT SWITCHING DIODE

1N914

FEATURES

- ✧ Fast Switching Speed
- ✧ Surface Mount Package Ideally Suited for Automatic Insertion
- ✧ For Surface Mounted Applications
- ✧ RoHS compliant/Green EMC
- ✧ For General Purpose Switching Applications
- ✧ High Conductance

SOD-523



Symbol

MECHANICAL DATA

- ✧ Case: SOD-523 Molded Plastic
- ✧ Polarity: Color Band Denotes Cathode End
- ✧ Weight: 0.002grams(approx.)
- ✧ Type Code: T4

ABSOLUTE MAXIMUM RATING CHARACTERISTICS

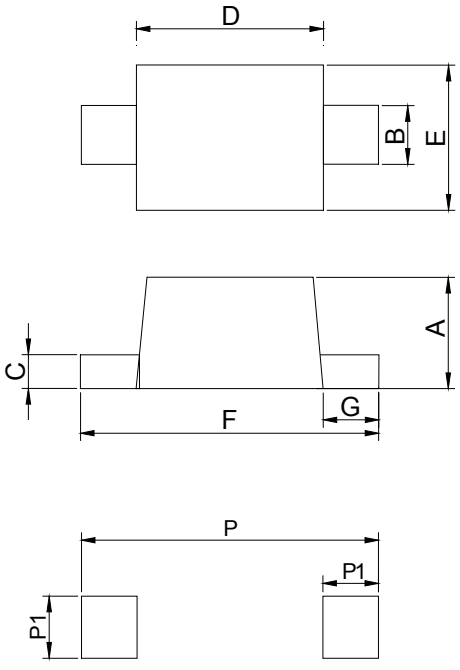
(Rating at 25℃ ambient temperature unless otherwise specified.)

Parameter	Symbol	1N914	Unit
Continuous Reverse Voltage	V_R	75	V
Peak Repetitive Reverse Voltage	V_{RM}	100	V
Average Rectified Output Current at T_A=25℃	I_O	150	mA
Peak Forward Current	I_{FM}	300	mA
Non-Repetitive Forward Surge Current at t_P=1s	I_{FSM}	1	A
Power Dissipation at T_A=25℃	P_D	200	mW
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	625	℃/W
Operating Junction Temperature Range	T_j	-55 to +150	℃
Storage Temperature Range	T_{stg}	-55 to +150	℃

ELECTRICAL CHARACTERISTICS(Rating at 25℃ ambient temperature unless otherwise specified.)

Symbol	Parameter	Conditions	Value			Unit
			Min.	Typ.	Max.	
V_F	Forward Voltage	I_F=5mA	-	-	0.715	V
		I_F=10mA	-	-	0.855	V
		I_F=100mA	-	-	1.0	V
		I_F=150mA	-	-	1.25	V
I_R	Reverse Current	V_R=75V,T_j=25℃	-	-	1	μA
		V_R=20V,T_j=25℃	-	-	25	nA
		V_R=75V,T_j=150℃	-	-	50	μA
C_T	Capacitance	V_R=0V,f=1MHz	-	-	2	pF
Trr	Reverse Recovery Time	I_F=I_R=10mA I_{RR}=1mA,R_L=100Ω	-	-	4	ns

PACKAGE MECHANICAL DATA

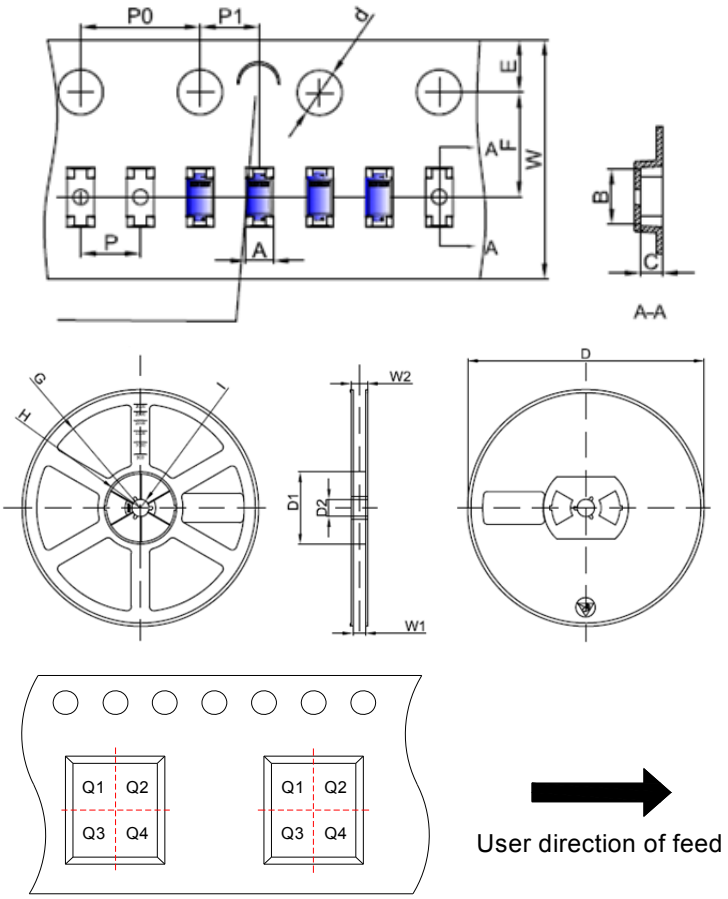


Land Pattern

Symbol	Millimeters			Inches		
	Min	Typ	Max	Min	Typ	Max
A	0.50	0.61	0.77	0.020	0.024	0.030
B	0.25	0.30	0.40	0.010	0.012	0.016
C	0.07	0.13	0.20	0.003	0.005	0.008
D	1.10	1.20	1.30	0.043	0.047	0.051
E	0.70	0.80	0.90	0.028	0.031	0.035
F	1.50	1.60	1.70	0.059	0.063	0.067
G	0.15	0.20	0.25	0.006	0.008	0.010
P1	0.60			0.024		
P	1.42			0.056		

TAPE AND REEL SPECIFICATION-SOD-523

1N914



Pin 1 quadrant:Q1&Q2

Symbol	Millimeters	Inches
	Typ.	Typ.
A	0.95	0.037
B	1.92	0.076
C	0.73	0.029
d	Φ1.50	Φ0.059
E	1.75	0.069
F	3.50	0.138
P0	4.00	0.157
P	2.00	0.079
P1	2.00	0.079
W	8.00	0.315
D	Φ178	Φ7.008
D1	54.40	2.142
D2	13.00	0.512
G	R78.00	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9.50	0.374
W2	12.30	0.484

Packaging Description:

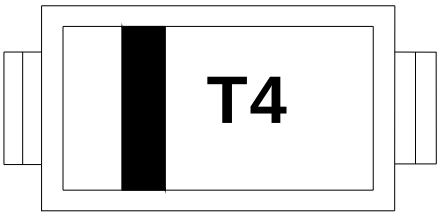
SOD-523 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 5,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated).

ORDERING INFORMATION

PART No.	PACKAGE TYPE	QUANTITY(PCS) REEL	DESCIPTION
1N914	SOD-523	5,000	7 inch reel pack

MARKING CODE

1N914

Part Number	Marking Code
1N914	

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics

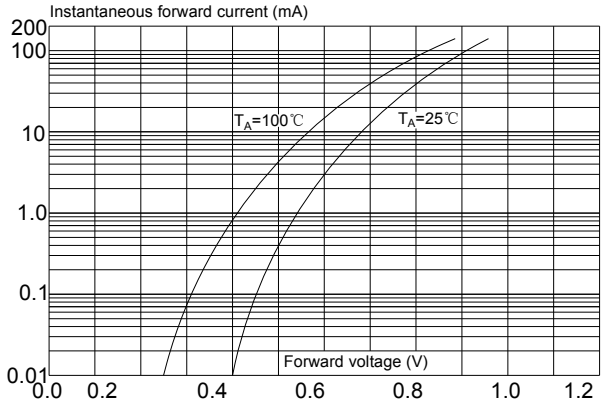


FIG.2: Typical reverse characteristics

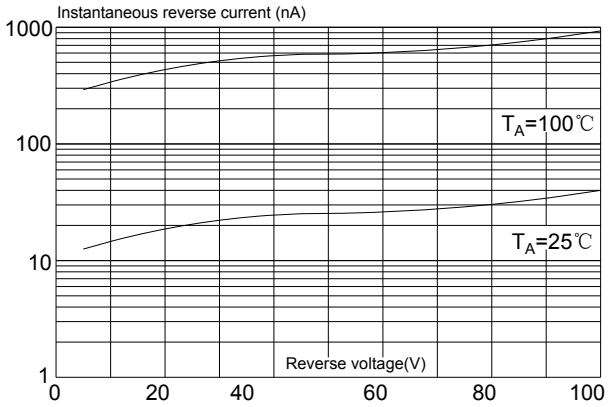


FIG.3: Typical capacitance characteristics

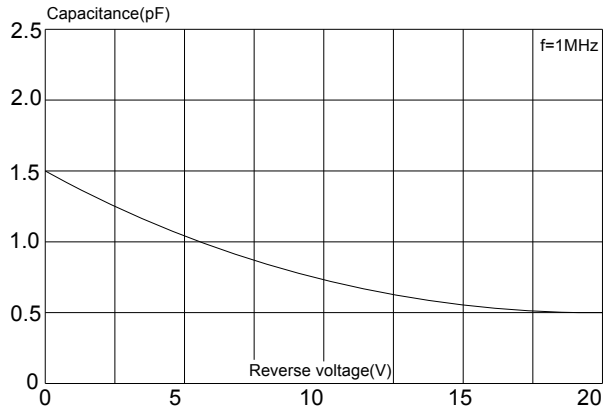


FIG.4: Power derating curve