

FEATURES

Fast Switching Speed
High reliability

VOLTAGE RANGE

90 Volts

CURRENT

0.01Ampere

MECHANICAL DATA

Case: SOD-523

Terminals: Solderable per MIL-STD-750, Method 2026



SOD-523

A6

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings @Ta=25°C

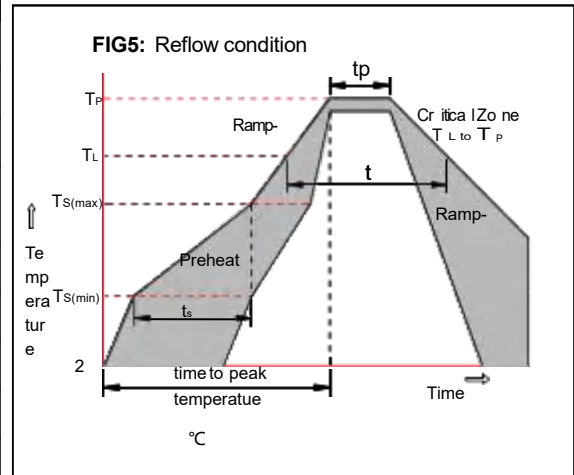
Parameter	Symbol	Rating	Unit
Reverse voltage (Repetitive)	V _{RM}	90	V
Reverse voltage (DC)	V _R	80	
Average rectified forward current	I _O	100	mA
Forward voltage (Repetitive Peak)	I _{FM}	225	
Surge Current(t=1s)	I _{surge}	500	
Junction Temperature	T _J	125	°C
Storage Temperature range	T _{stg}	-55 to 125	

Electrical Characteristics ($T_J=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	$I_R=100\text{ }\mu\text{A}$	90			V
Forward voltage	V_F	$I_F=100\text{ mA}$			1.2	
Reverse voltage leakage current	I_R	$V_R=80\text{ V}$			0.1	μA
Junction capacitance	C_j	$V_R=0.5\text{ V}$, $f=1\text{ MHz}$			3	pF
Reverse recovery time	t_{rr}	$V_R=6\text{ V}$, $I_F=10\text{ mA}$, $R_L=100\Omega$			4	ns

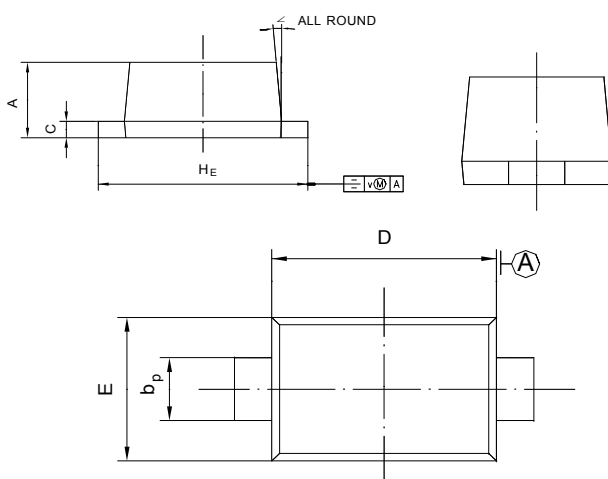
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

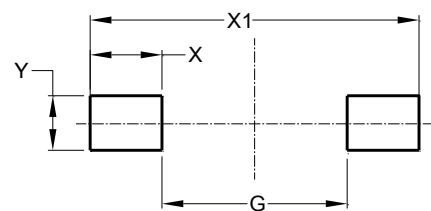


Package Dimensions & Suggested Pad Layout

SOD523

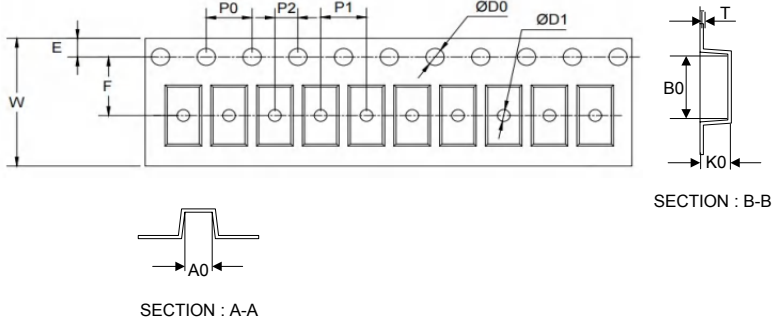
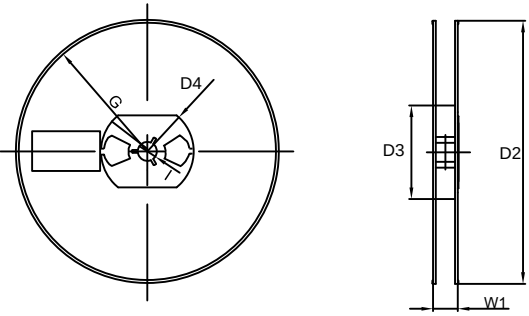


UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70 0.50	0.40 0.20	0.14 0.05	1.30 1.10	0.90 0.75	1.70 1.50	0.1	5°



Dimensions	Value (in mm)
G	0.85
X	0.70
X1	2.25
Y	0.80

Tape & reel specification

Tape		Symbol	Dimension (mm)
		P0	4.00±0.20
		P1	2.00±0.20
		P2	2.00±0.20
		D0	1.55±0.20
		D1	0.50±0.20
		E	1.55±0.25
		F	3.60±0.20
		W	8.00±0.20
		A0	1.30±0.20
		B0	2.35±0.20
		K0	0.95±0.20
		T	0.20±0.20
		D2	177.0±5.0
		D3	55Min.
		D4	R24.6±2.0
7" Reel		G	R82.0±2.0
		I	13.0±2.0
		W1	10.20±3.0
		Quantity: 3000PCS	