

FEATURES

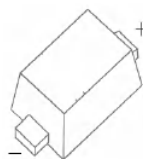
Low Forward Voltage Drop
SOD523 Micro SMD package
RoHS compliant / Green EMC
Matte Tin (Sn) Lead finish
Cathode Band / Device marking
Surface Mount Package Ideally Suited
for Automatic Insertion

VOLTAGE RANGE

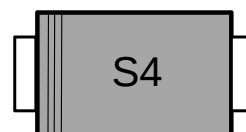
40 Volts

CURRENT

0.35 A



SOD-523



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

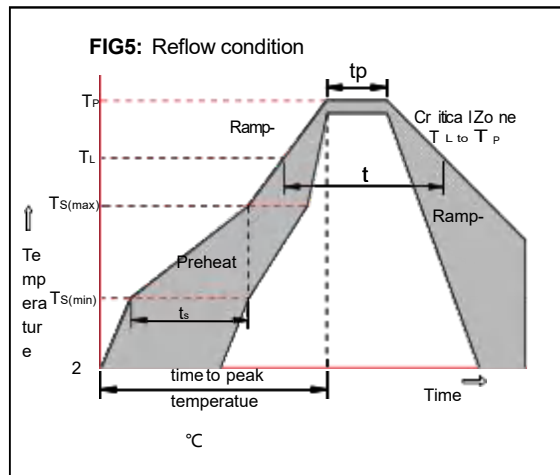
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Reverse Voltage	V_R	40	V
Average Forward Rectified Current	$I_{F(AV)}$	350	mA
Non-Repetitive Peak Forward Surge Current at $t = 1$ s	I_{FSM}	2	A
Power Dissipation	P_{tot}	200	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 125	°C

Characteristics at Ta = 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R=10\mu A$	$V_{(BR)R}$	40	- - -	- - -	V
Reverse Leakage Current at $V_R=30V$	I_R	- -	- -	5	μA
Forward Voltage at $I_F=20\text{ mA}$ at $I_F=200\text{ mA}$	V_F	- -	- -	0.37 0.6	V
Total Capacitance at $V_R=0\text{ V}$, $f=1\text{ MHz}$	C_T	-	50	-	pF
Reverse Recovery Time at $I_F=I_R=200\text{ mA}$, $I_{rr}=0.1 I_R$, $R_L=100\ \Omega$	t_{rr}	-	10	-	ns

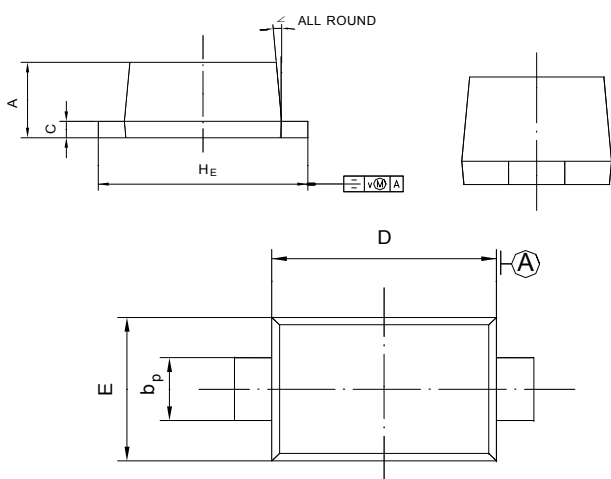
Soldering parameters

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

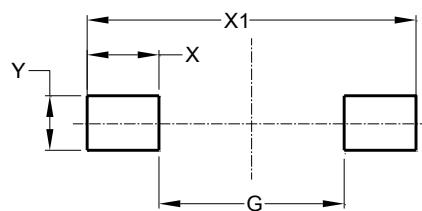


Package Dimensions & Suggested Pad Layout

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

