

Features

- Moisture Sensitivity Level 3
- High surge capability
- Low forward voltage drop
- Ideal for automated placement
- Ultrafast reverse recovery time

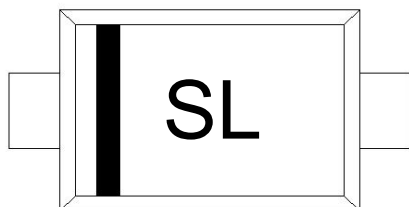
Applications

- Low Voltage
- Switching circuit
- High-Frequency Inverters

Mechanical Characteristics

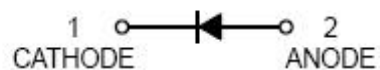
- Package: SOD-523
- Marking: Part number
- Packaging: Tape and Reel
- ROHS compliant

MARKING



(1) "SL" is part number, fixed.

Equivalent circuit

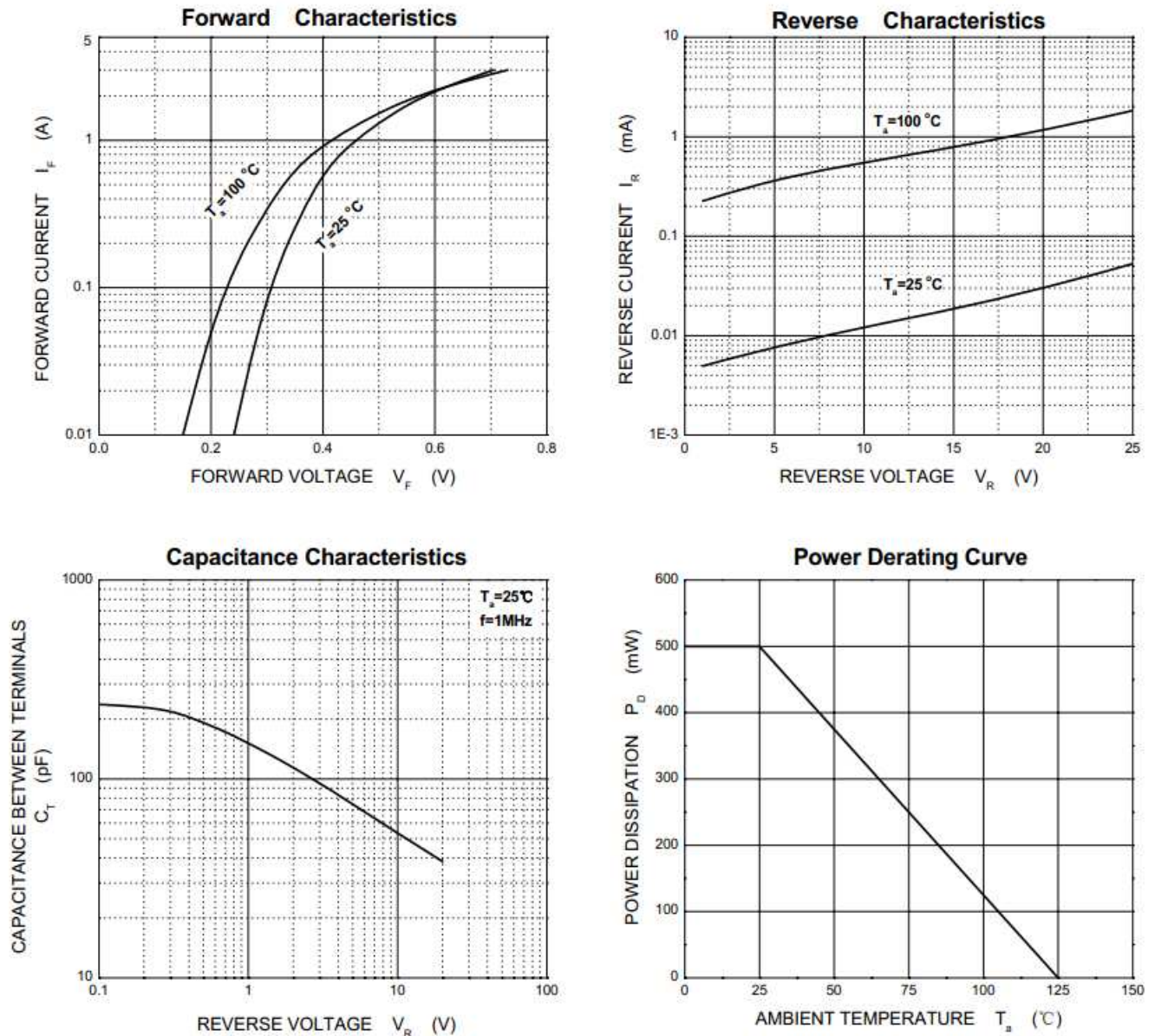




Absolute Maximum Ratings (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Limit	Unit
Non-repetitive peak reverse voltage	V _{RM}	40	V
Peak Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Working Peak Reverse Voltage	V _{RWM}	40	V
DC Blocking Voltage	V _R	40	V
RMS reverse voltage	V _{R(RMS)}	28	V
Average rectified output current	I _O	1	A
Non-repetitive Peak Forward Surge Current@t=8.3ms	I _{FSM}	5	A
Power Dissipation	P _D	250	mW
Thermal Resistance Junction to Ambient	R _{θJA}	400	°C/W
Junction temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

Electrical Specifications (T _A =25°C unless otherwise noted)						
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V _{BR}	I _R = 1mA	40			V
Reverse Leakage Current	I _R	V _R = 40V			1	mA
Forward Voltage	V _F	I _F = 1.0A			0.63	V
Total Capacitance	C _T	V _R = 4V, f = 1.0MHz			120	pF

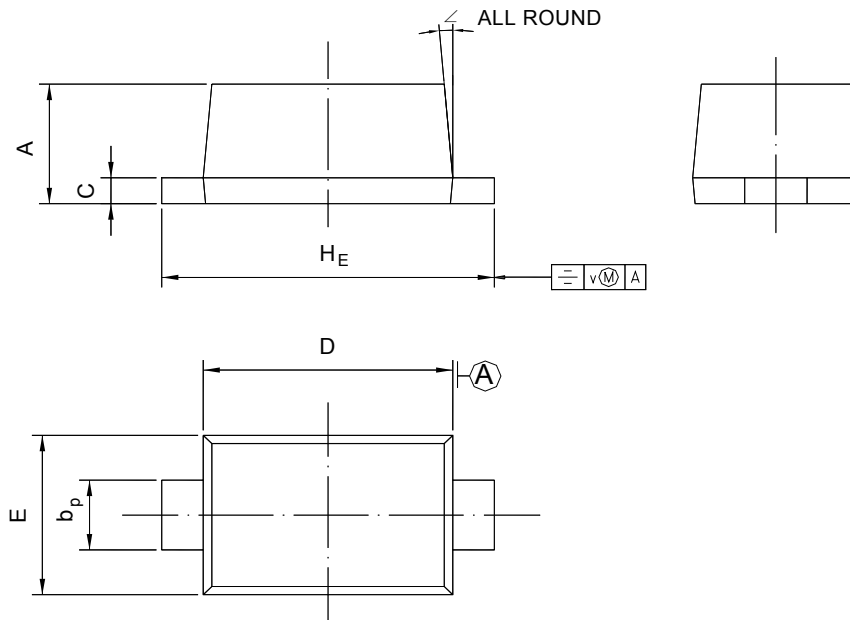
Typical Characteristics





PACKAGE OUTLINE

SOD-523

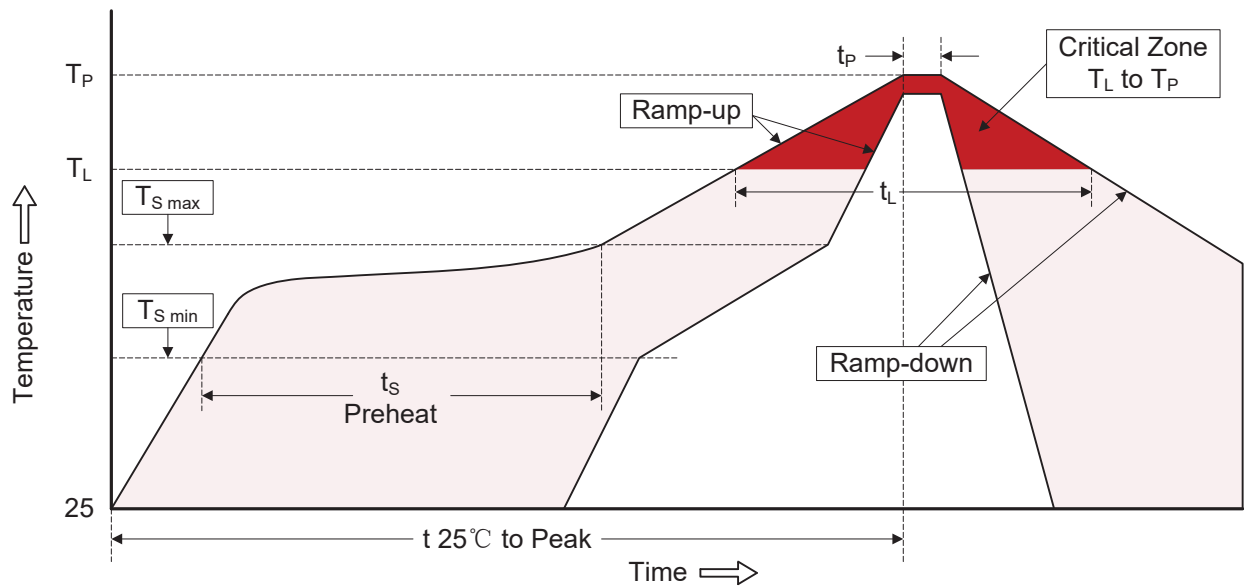


UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°



Recommended Soldering Conditions

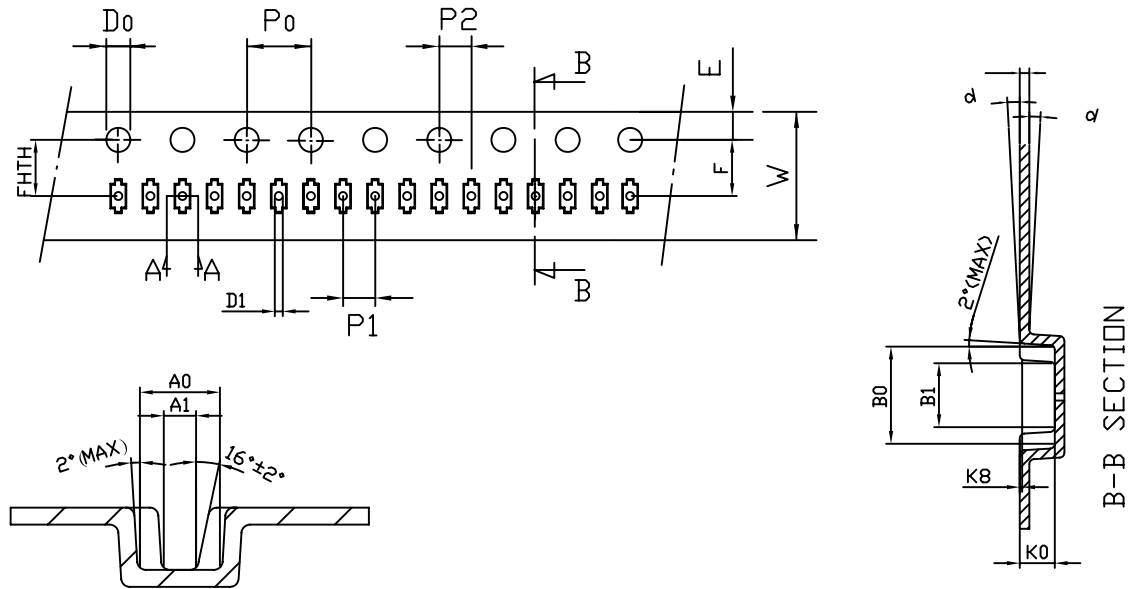
Reflow Soldering



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_s)	150°C 200°C 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

Tape and Reel Specification



A-A SECTION

unit:mm

symbol	A0	B0	K0	P0	P1	P2	A1	T
Spec	0.90±0.05	1.95±0.05	0.73±0.05	4.0±0.10	2.0±0.05	2.0±0.05	0.39±0.05	0.20±0.02
symbol	E	F	D0	D1	B2	W	10P0	K8
Spec	1.75±0.10	3.50±0.05	1.50 ^{+0.10} ₋₀	0.50±0.05	1.40±0.05	8.0 ^{+0.3} _{-0.1}	40.0±0.10	0.15MAX
symbol	FHTH							
Spec	3.50±0.05							