

SCHOTTKY BARRIER DIODE

Dimensions SOD-523

● Applications

Low current rectification and high speed switching

● Features

Extremely small surface mounting type. (SC-79/SOD523)

Extremely Fast Switching Speed

Extremely Low Forward Voltage 0.6 V (max) @ $I_F = 200\text{mA}$

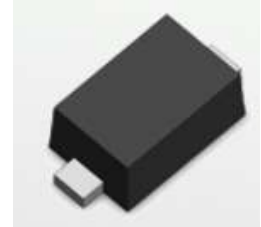
Low Reverse Current

● Construction

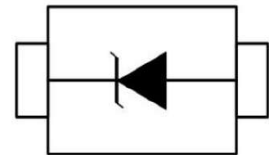
Silicon epitaxial planar

- We declare that the material of product compliance with RoHS requirements.

- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



Pin Configuration



DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LRB520S-30T1G S-LRB520S-30T1G	5J	3000/Tape&Reel
LRB520S-30T3G S-LRB520S-30T3G	5J	10000/Tape&Reel

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
DC reverse voltage	V_R	30	V
Mean rectifying current	I_o	200	mA
Peak forward surge current	I_{FSM}	1	A
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-40~+125	$^\circ\text{C}$
Total power dissipation @ $T_a=25^\circ\text{C}$	P_D	150	mW
Derate above 25°C		1.2	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	R_{ja}	833	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.60	V	$I_F=200\text{mA}$
Reverse current	I_R	-	-	1.0	μA	$V_R=10\text{V}$

Electrical characteristic curves (Ta=25°C)

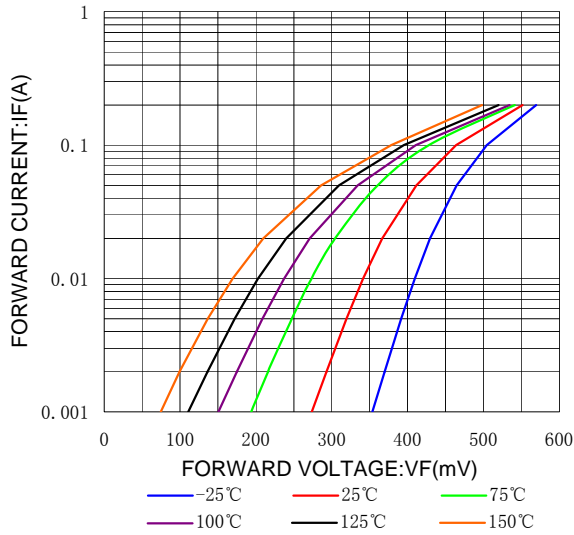


Fig.1 FORWARD CHARACTERISTICS

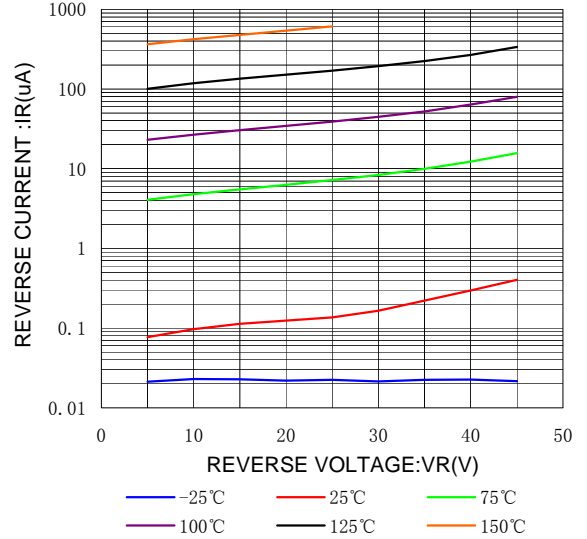


Fig.2 REVERSE CHARACTERISTICS

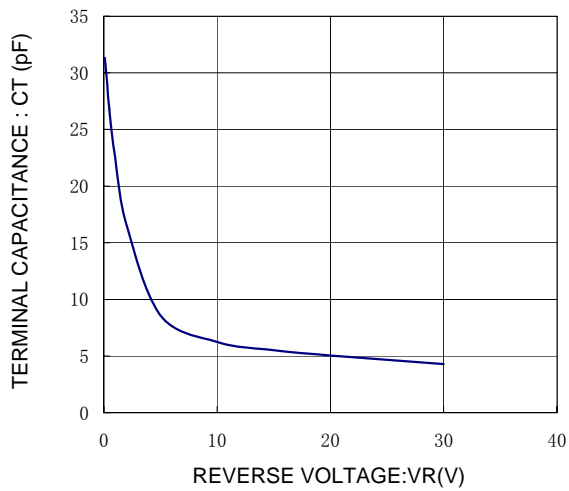
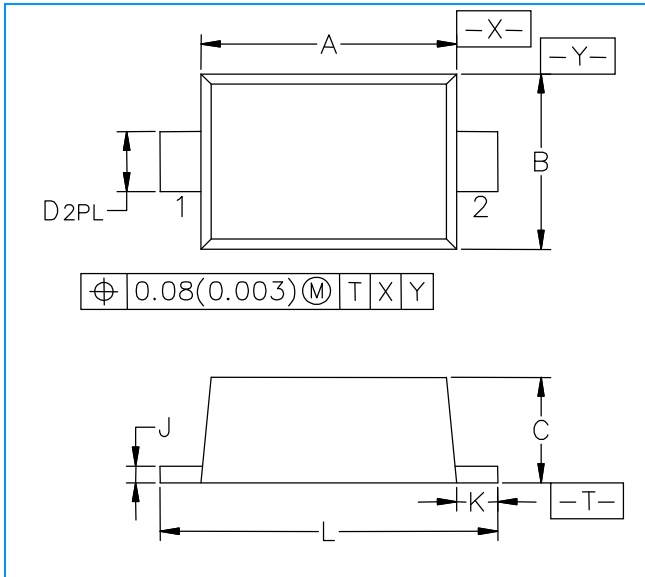
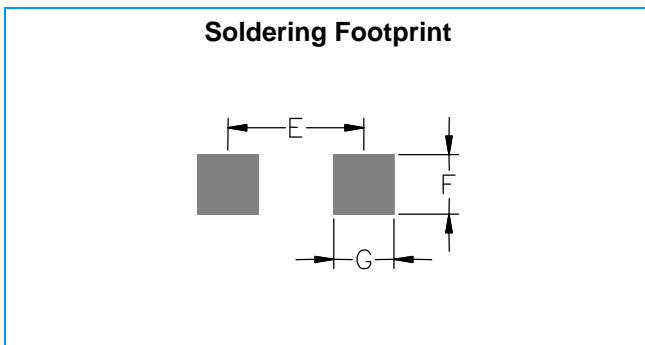


Fig.3 VR-CT CHARACTERISTICS

SOD-523 Package Outline & Dimensions



Symbol	Millimeters			Inches		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	1.10	1.20	1.30	0.043	0.047	0.051
B	0.70	0.80	0.90	0.028	0.032	0.035
C	0.50	0.60	0.70	0.020	0.024	0.028
D	0.25	0.30	0.35	0.010	0.012	0.014
J	0.07	0.14	0.20	0.0028	0.0055	0.0079
K	0.15	0.20	0.25	0.006	0.008	0.010
S	1.50	1.60	1.70	0.059	0.063	0.067



Symbol	Millimeters	Inches
E	1.40	0.0547
F	0.40	0.0157
G	0.40	0.0157