

# SCHOTTKY BARRIER DIODE

## ● 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

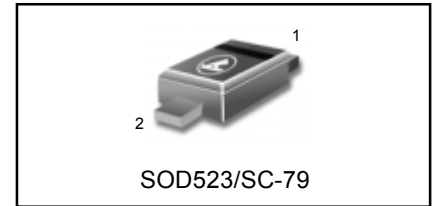
## ● Construction

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.

**LRB520S-30T1G**  
**S-LRB520S-30T1G**



## 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 $25^\circ\text{C}$		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	$\mu\text{A}$	$V_R=10\text{V}$

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Electrical characteristic curves (Ta=25°C)

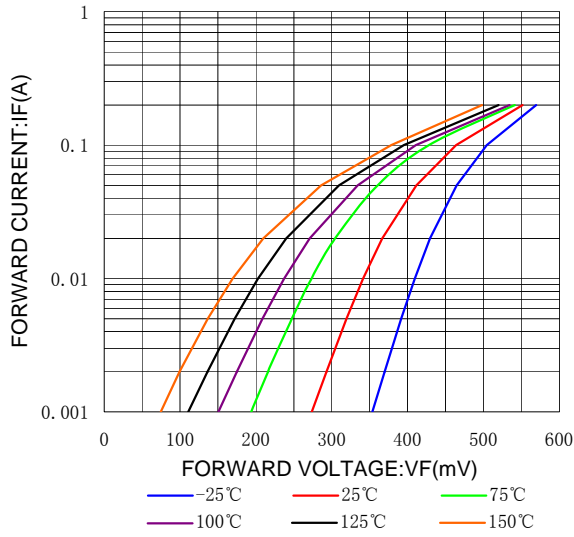


Fig.1 FORWARD CHARACTERISTICS

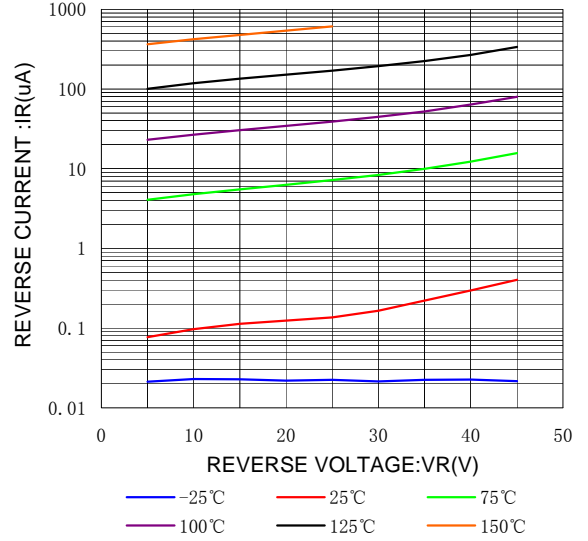


Fig.2 REVERSE CHARACTERISTICS

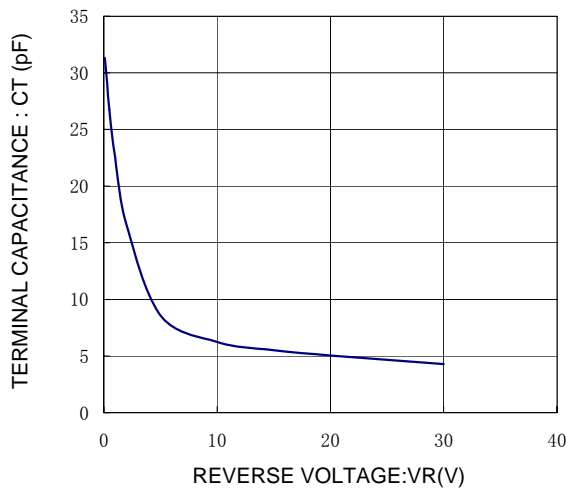
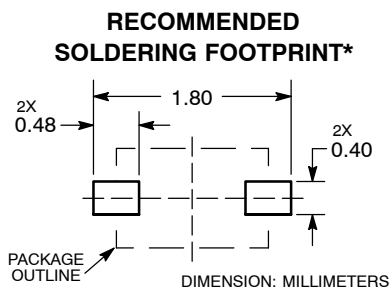
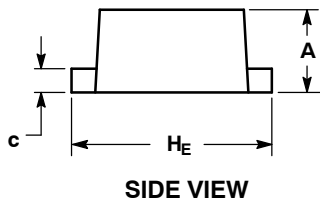
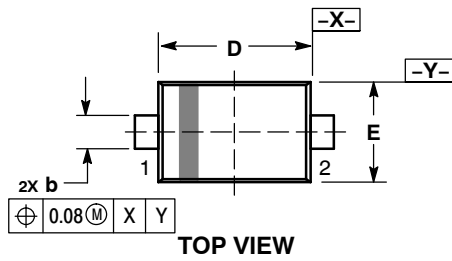


Fig.3 VR-CT CHARACTERISTICS

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SC-79/SOD-523



NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

DIM	MILLIMETERS		
	MIN	NOM	MAX
A	0.50	0.60	0.70
b	0.25	0.30	0.35
c	0.07	0.14	0.20
D	1.10	1.20	1.30
E	0.70	0.80	0.90
H E	1.50	1.60	1.70
L	0.30 REF		
L2	0.15	0.20	0.25