

## Plastic-Encapsulate Diodes

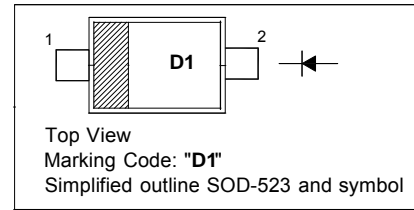
Schottky Barrier Diode

### FEATURES

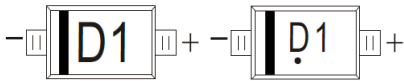
- Small surface mounting type
- Low  $I_R$
- High reliability

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



MARKING: D1



The marking bar indicates the cathode  
Solid dot = Green molding compound device, if none,  
the normal device.

### Maximum Ratings and Electrical Characteristics, Single Diode @ $T_A=25^\circ\text{C}$

Parameter	Symbol	Limit	Unit
DC reverse voltage	$V_R$	40	V
Mean rectifying current	$I_o$	0.2	A
Non-repetitive peak forward surge current@ $t=8.3\text{ms}$	$I_{FSM}$	1	A
Power Dissipation	$P_D$	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	667	$^\circ\text{C}/\text{W}$
Junction temperature	$T_J$	125	$^\circ\text{C}$
Storage temperature	$T_{STG}$	-55~+150	

### Electrical Ratings @ $T_A=25^\circ\text{C}$

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	$V_F$		0.304 0.446	0.39 0.55	V	$I_F=10\text{mA}$ $I_F=100\text{mA}$
Reverse current	$I_R$		0.605 2.837	1 10	$\mu\text{A}$	$V_R=10\text{V}$ $V_R=40\text{V}$



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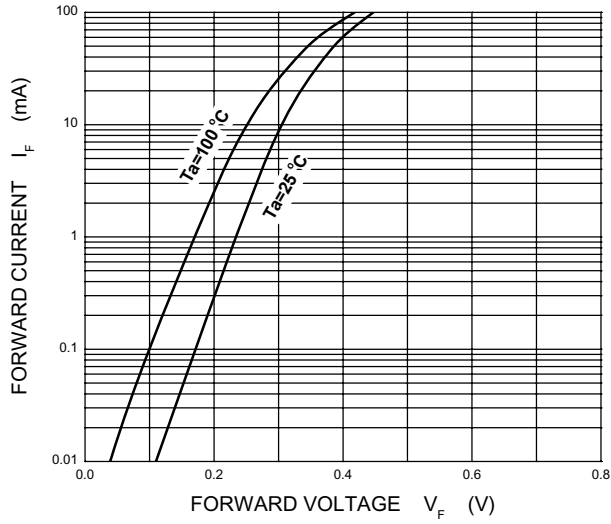
SOD-523

RB520S-40

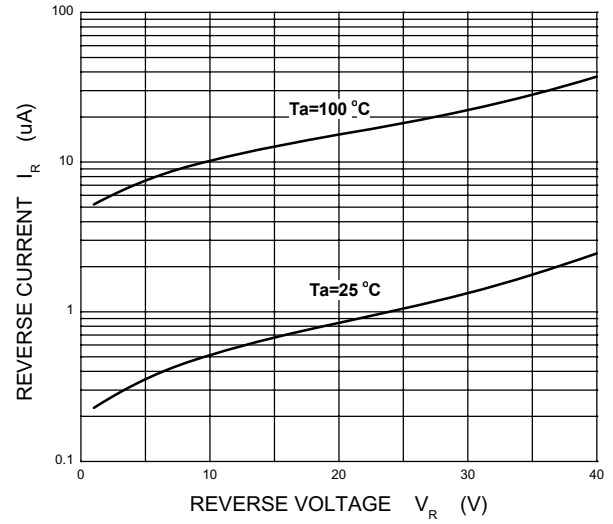


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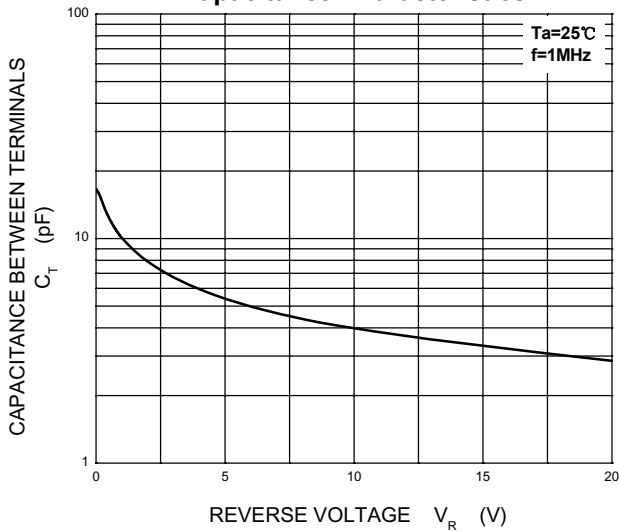
Forward Characteristics



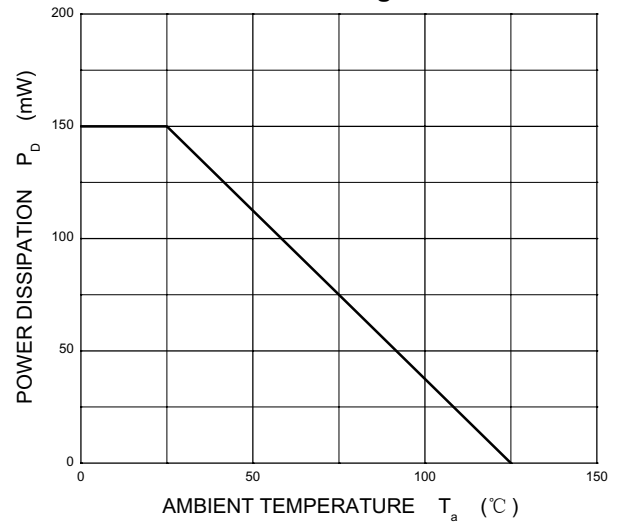
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve





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**SOD-523**

**RB520S-40**

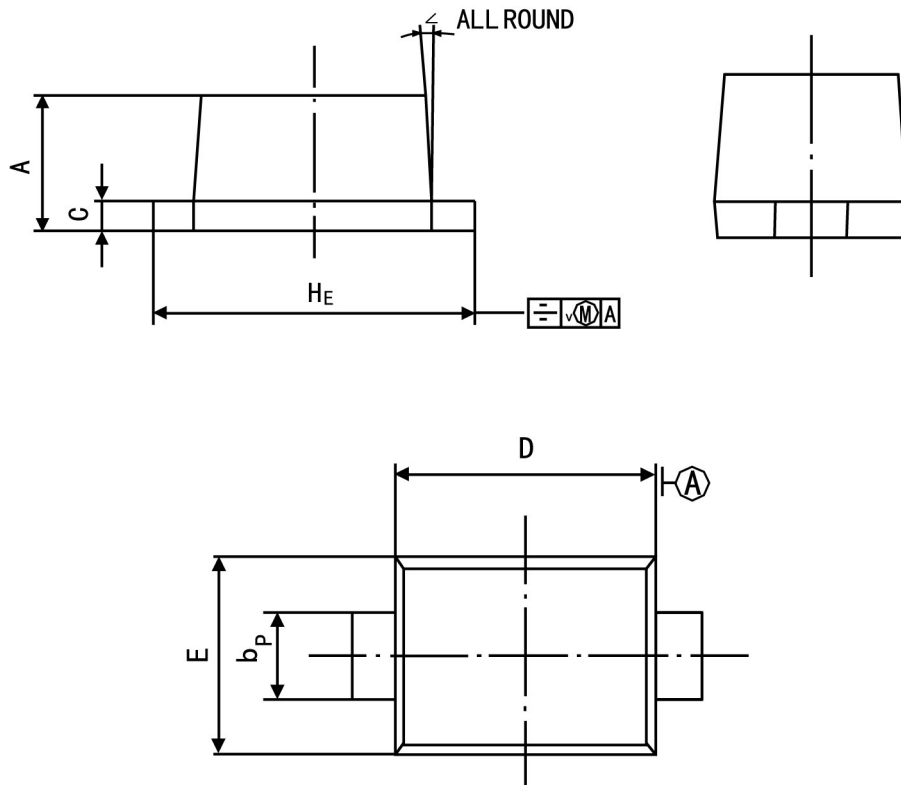


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**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SOD-523



Symbol	Dimension in Millimeters	
	Min	Max
A	0.60	0.70
bp	0.30	0.40
C	0.100	0.14
D	1.15	1.25
E	0.75	0.85
HE	1.50	1.70
V	—	0.10
∠	—	5°