

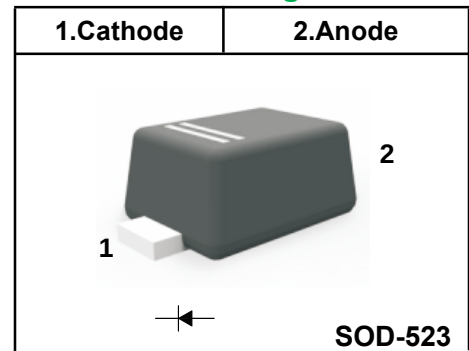
Plastic-Encapsulate Diodes

Schottky Barrier Diode

Features

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

Pinning



Marking Code

RB520S-40	D1
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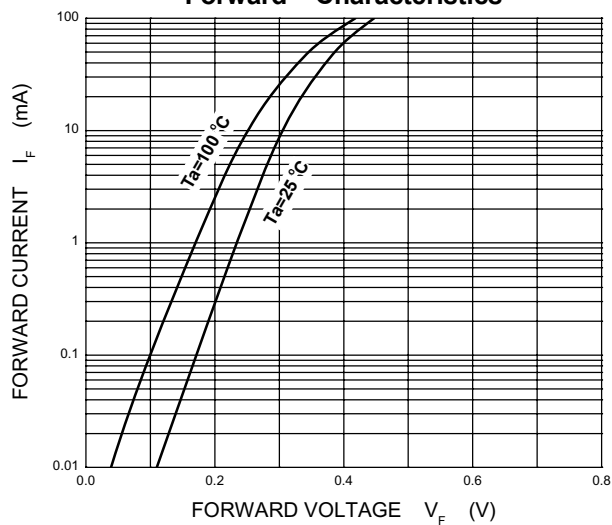
Maximum Ratings and Electrical Characteristics, Single Diode @ $T_A=25^{\circ}\text{C}$

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	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-40~+125	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55~+150	

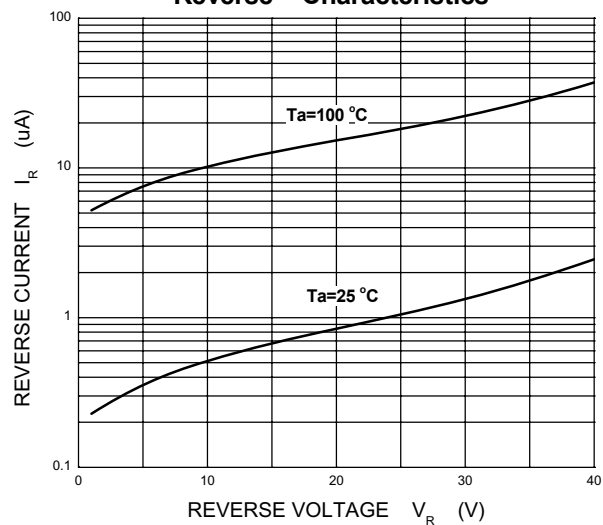
Electrical Ratings @ $T_A=25^{\circ}\text{C}$

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	μA	$V_R=10\text{V}$ $V_R=40\text{V}$

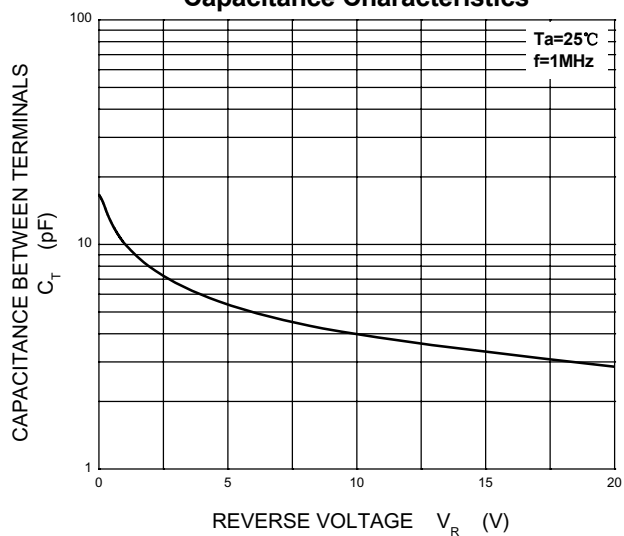
Forward Characteristics



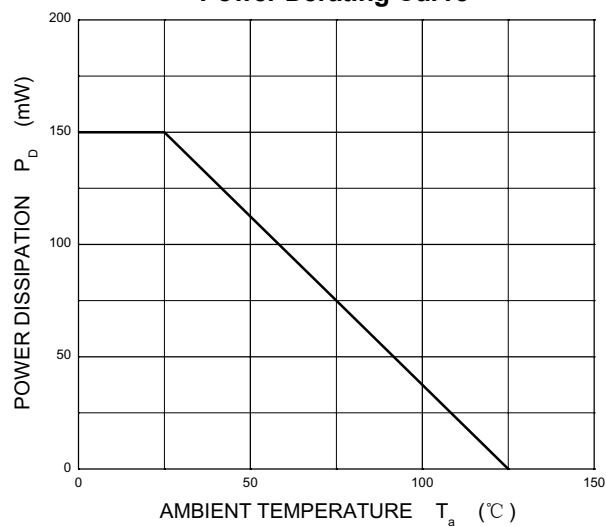
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



Ordering information

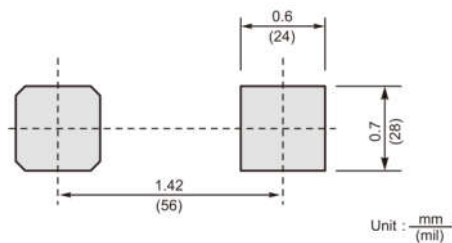
Package	Packing Description	Packing Quantity
SOD-523	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-523

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.51	0.77	20	30
e	0.25	0.35	10	14
C	0.08	0.15	3	6
D	1.10	1.30	43	51
E	0.75	0.99	30	39
HE	1.50	1.70	59	67
N	0.35ref		14ref	
L	0.2ref		8ref	
P	R0.1 ALL ROUND		R4.0 ALL ROUND	
∠	10°			

The recommended mounting pad size



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