



**THE DATASHEET OF  
RB521S-40-TP**



**Features**

- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- High Reliability
- Low Reverse Current And Low Forward Voltage
- Small Surface Mount Type
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Halogen Free. "Green" Device (Note 1)

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 667°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
RB521S-40	S	40V	28V	40V

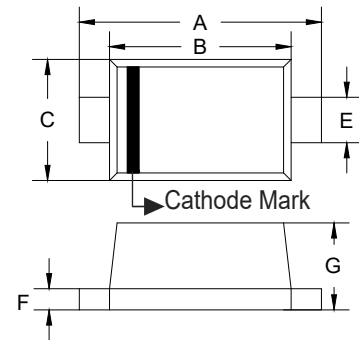
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Non-repetitive peak reverse voltage	$V_{RM}$	45V	
Average Rectified Output Current	$I_O$	200mA	
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	1A	t=8.3ms
Power Dissipation	$P_D$	150mW	
Forward Voltage	$V_F$	0.16V(Min) 0.30V(Max) 0.31V(Min) 0.45V(Max) 0.38V(Min) 0.54V(Max)	$I_F=10mA;$  $I_F=100mA;$  $I_F=200mA;$
Reverse Current	$I_R$	20µA(Max) 90µA(Max)	$V_R = 10V$ $V_R = 40V$
Reverse Breakdown Voltage	$V_{(BR)}$	40V(Min)	$I_R=100µA$

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

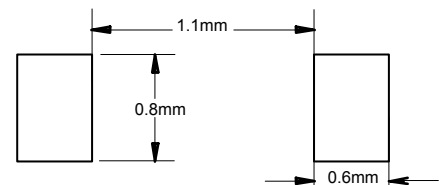
**200 mA  
Schottky Barrier  
Diode  
40 Volts**

**SOD-523**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.043	0.051	1.10	1.30	
C	0.030	0.033	0.75	0.85	
E	0.010	0.014	0.25	0.35	
F	0.003	0.008	0.08	0.20	
G	0.020	0.026	0.50	0.65	

**Suggested Solder Pad Layout**



## Curve Characteristics

Fig. 1 - Forward Characteristics

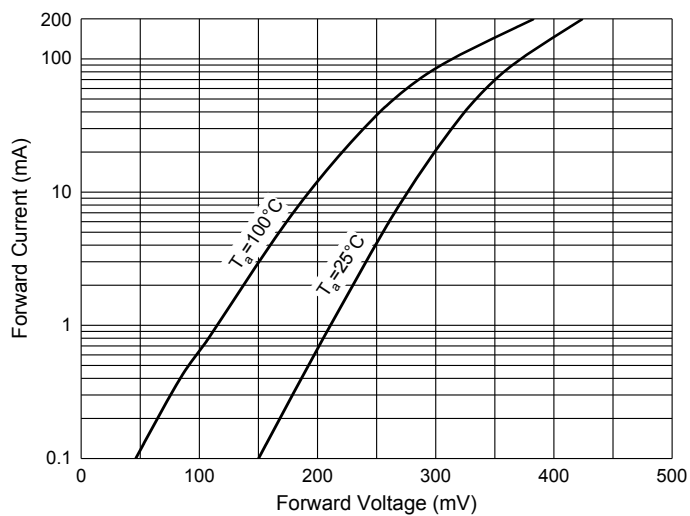


Fig. 2 - Reverse Characteristics

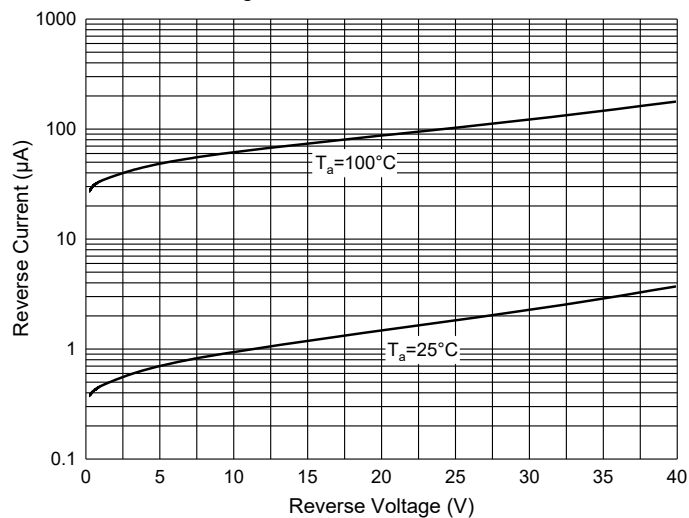
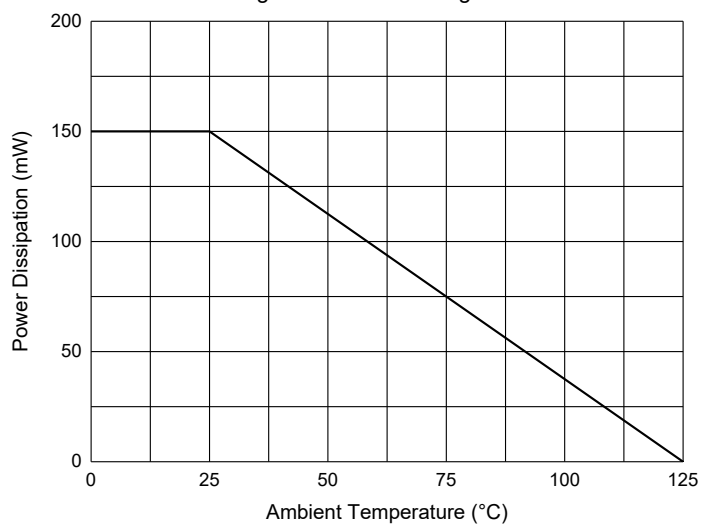


Fig. 3 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel
Part Number-T3P	Tape&Reel: 3Kpcs/Reel

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