

**Features**

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

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 833°C/W Junction to Ambient(Note 2)

MCC Part Number	Repetitive Peak Reverse Voltage $V_{RRM}$	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage $V_R$
RB520S-40H	40V	28V	40V

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

Parameter	Symbol	Value
Forward Current	$I_F$	200mA
Peak Forward Surge Current	$I_{FSM}$	1A@t=8.3ms half sine wave 2.5A@t=1ms square wave
Power Dissipation	$P_D$	150mW

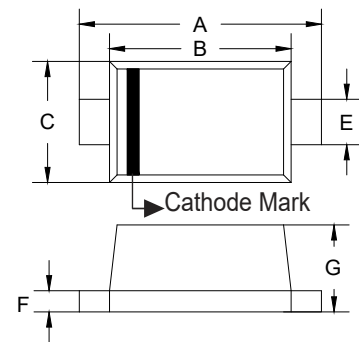
- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.  
2. Valid Provided that Terminals are Kept at Ambient Temperature.

**Internal Structure and Marking Code**



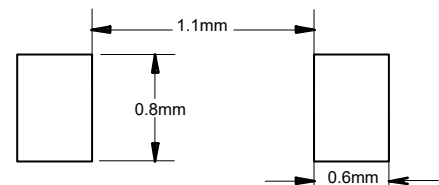
**200 mA  
Schottky Barrier  
Diode  
40 Volts**

**SOD-523**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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**



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	$V_{BR}$	$I_R=10\mu A$	40			V
Forward Voltage	$V_F$	$I_F=10mA$			0.45	V
		$I_F=200mA$			0.60	V
Reverse Current	$I_R$	$V_R=10V, T_J=25^\circ C$			1	$\mu A$
		$V_R=40V, T_J=25^\circ C$			2	$\mu A$
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$			30	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10mA,$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$			10	ns

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

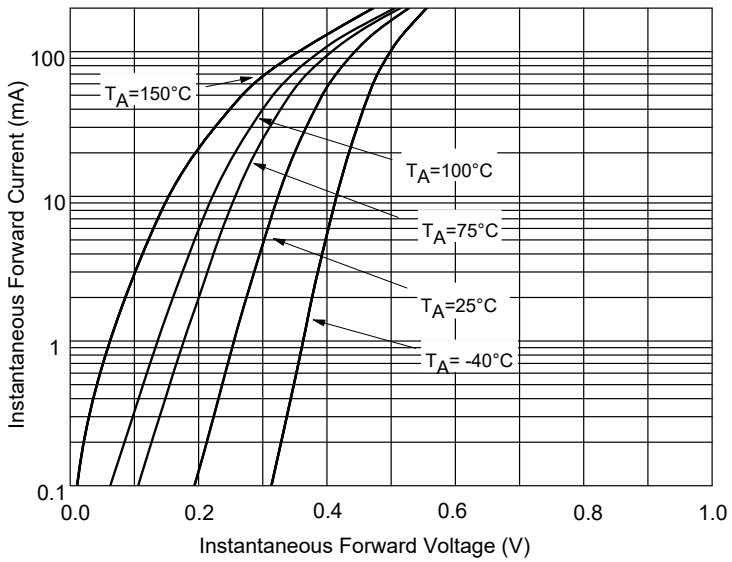


Fig. 2 - Typical Reverse Leakage Characteristics

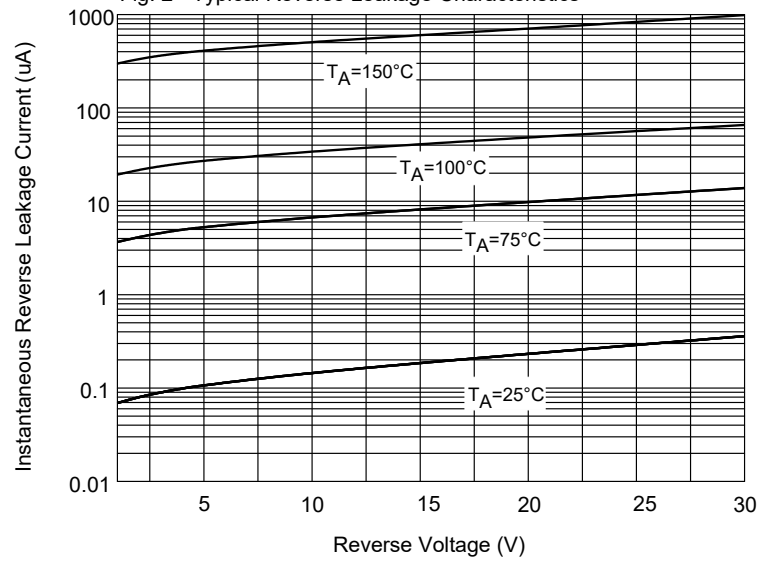


Fig. 3 - Capacitance Characteristics

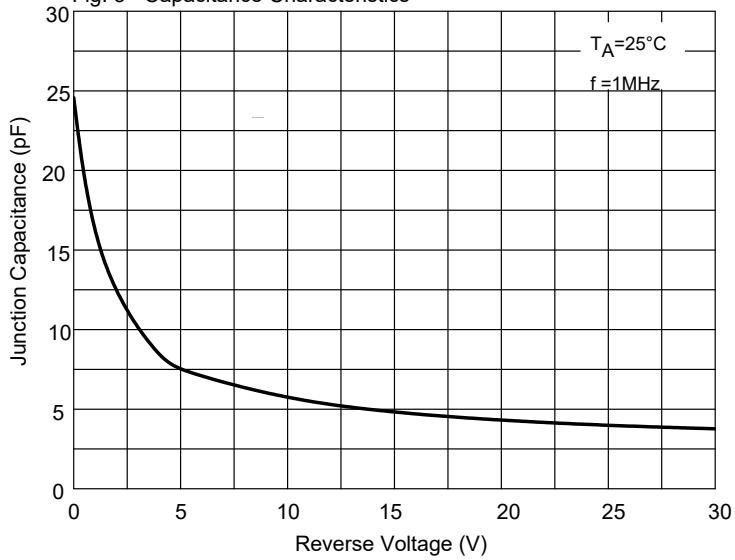
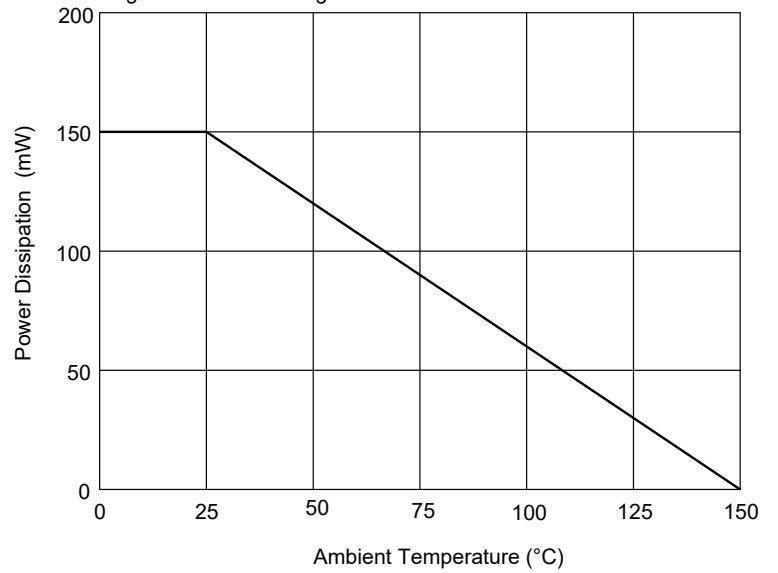


Fig. 4 - Power Derating Curve



## Ordering Information

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

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