

Features

- Halogen Free. "Green" Device (Note 1)
- Low Voltage, Low Inductance
- High Current Rectifier Schottky Diode
- For Power Supply
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- AEC-Q101 Qualified

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance(Note2): 625°C/W Junction to Ambient

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
RB751S-40HE3	40V	28V	40V

Electrical Characteristics @ 25°C Unless Otherwise Specified

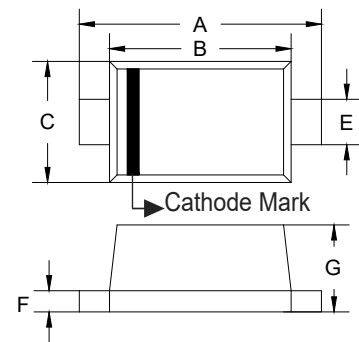
Average forward current	$I_{F(AV)}$	30mA	
Peak Forward Surge Current	I_{FSM}	1A	$t_p < 8.3ms$
Power Dissipation	P_D	200mW	
Max Forward Voltage	V_F	0.37V	$I_F = 1mA$
Max Reverse Current	I_R	0.5µA	$V_R = 30V$
Min Reverse Breakdown Voltage	$V_{(BR)}$	40V	$I_R = 10uA$
Max Junction Capacitance	C_J	5pF	$V_R = 0V, f = 1MHz$
Max Reverse Recovery Time	t_{rr}	7ns	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

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

Note: 2. Part mounted on FR-4 board with recommended pad layout.

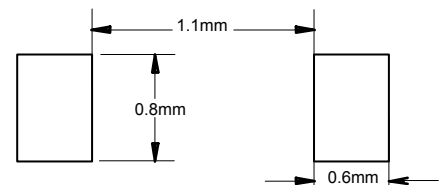
40 Volts Schottky Barrier Diode

SOD-523

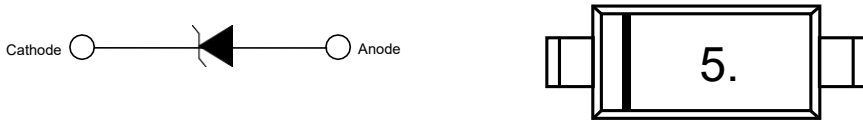


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.043	0.051	1.10	1.30	
C	0.030	0.033	0.75	0.85	
E	0.010	0.014	0.25	0.35	
F	0.003	0.008	0.08	0.20	
G	0.020	0.026	0.50	0.65	

Suggested Solder Pad Layout



Internal Structure and Marking Code



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

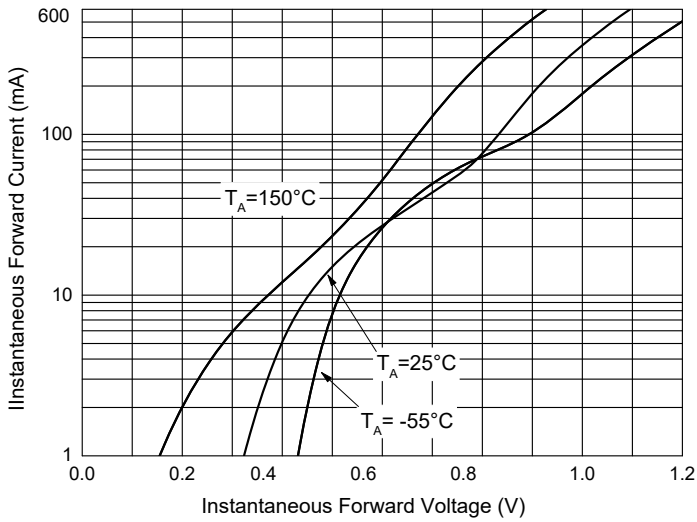


Fig. 2 - Typical Reverse Leakage Characteristics

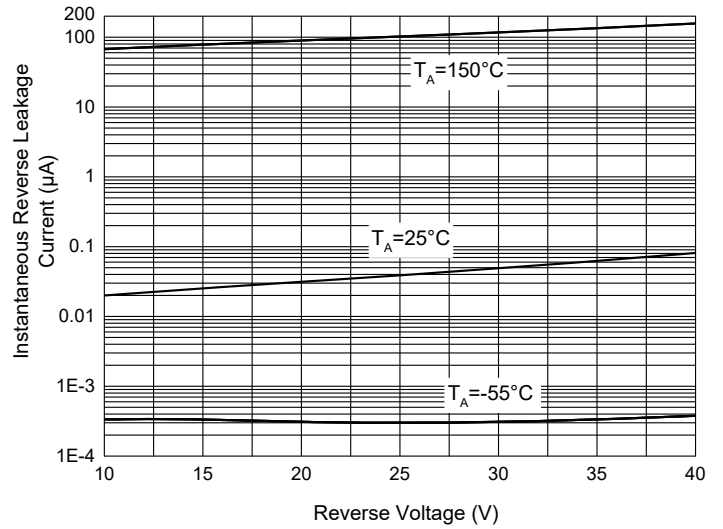


Fig. 3 - Capacitance Characteristics

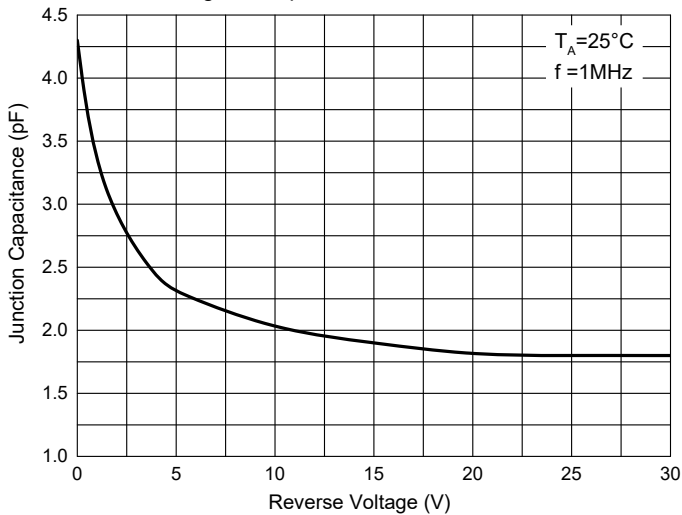
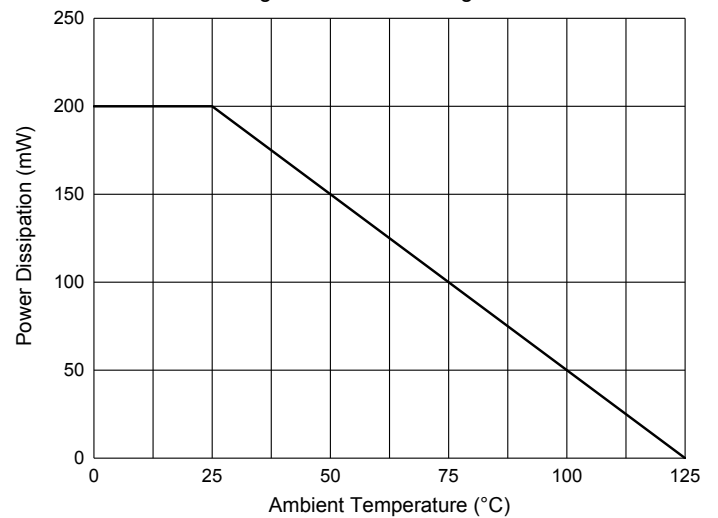


Fig. 4 - Power Derating Curve



Ordering Information

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

For packaging details, go to our website at <https://www.mccsemi.com/pdf/productpackaging/SOD-523%20Package.pdf>

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