

Features

- Halogen Free. "Green" Device (Note1)
- AEC-Q101 Qualified
- 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)

**250 mA
Schottky Barrier
Diode
40 Volts**

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

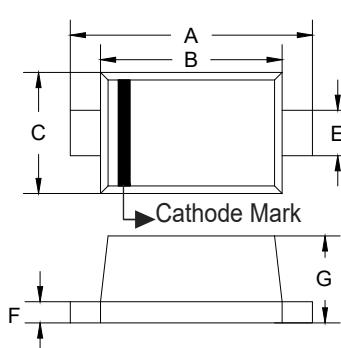
MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
RB520S-40HE3	40V	28V	40V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Value
Average Rectified Current	$I_{F(AV)}$	250mA
Peak Forward Surge Current (t=8.3s)	I_{FSM}	1A
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.



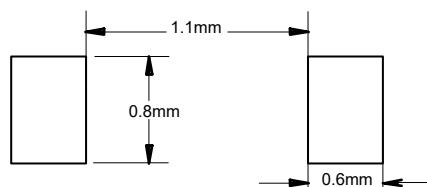
DIM	DIMENSIONS				NOTE	
	INCHES		MM			
	MIN	MAX	MIN	MAX		
A	0.059	0.067	1.50	1.70		
B	0.043	0.051	1.10	1.30		
C	0.030	0.033	0.75	0.85		
E	0.010	0.014	0.25	0.35		
F	0.003	0.008	0.08	0.20		
G	0.020	0.026	0.50	0.65		

Internal Structure and Marking Code

Cathode ○ —> Anode



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	$I_F=10mA$			0.39	V
		$I_F=100mA$			0.55	V
Reverse Current	I_R	$V_R=10V$			1	μA
		$V_R=40V$			10	μA
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$			20	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA,$ $I_{rr}=0.1\times I_R, R_L=100\Omega$			8	ns

* Pulse Test: Pulse Width 300 μ sec, Duty Cycle 2%

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

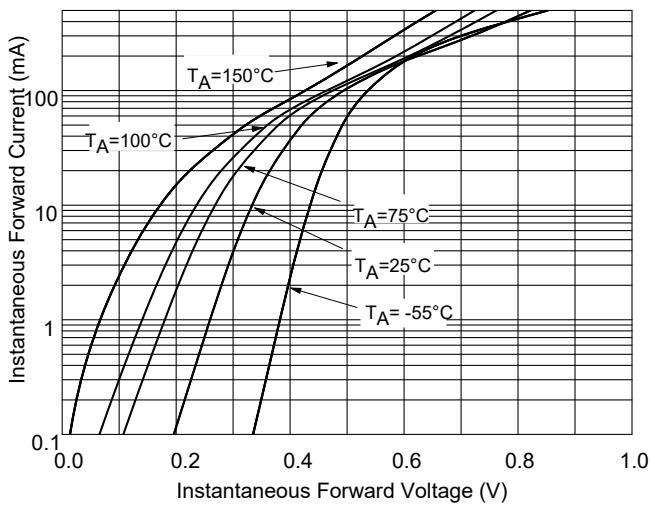


Fig. 2 - Typical Reverse Leakage Characteristics

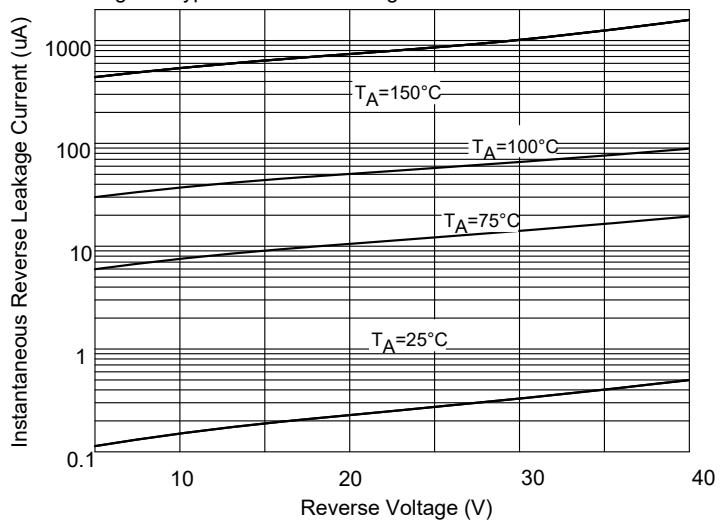


Fig. 3 - Capacitance Characteristics

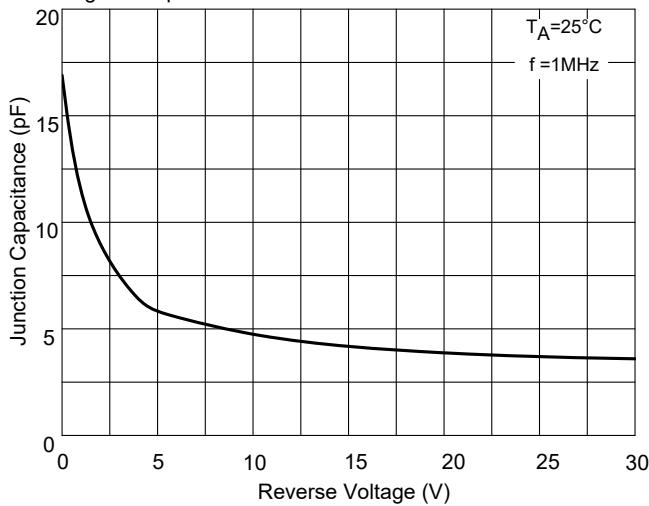
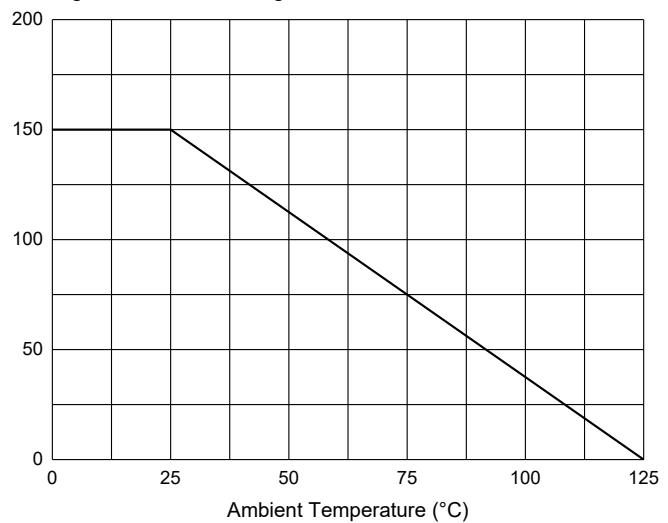


Fig. 4 - Power Derating Curve



Ordering Information

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

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