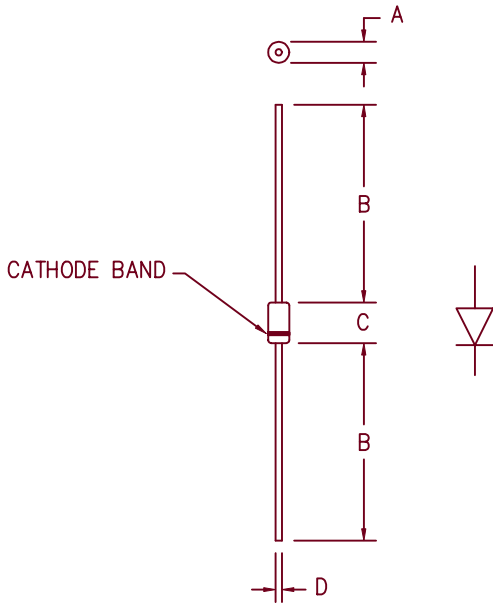


5 Amp Schottky Rectifier MS502, MS503



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.188	.260	4.78	6.50	Dia.
B	1.00	---	25.4	---	
C	.285	.375	7.24	9.52	
D	.046	.056	1.17	1.42	Dia.

PLASTIC D0201AD

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
MS502	20V	20V
MS503	30V	30V

- Schottky Barrier Rectifier
- Guard Ring Protection
- 150°C Junction Temperature
- V_{RRM} 20 to 30V

Electrical Characteristics

Average forward current	$I_F(AV)$ 5.0 Amps	$T_A = 123^\circ\text{C}$, Square wave, $R_{\theta JL} = 11^\circ\text{C/W}$, $L = 1/8"$
Average forward current	$I_F(AV)$ 5.0 Amps	$T_A = 113^\circ\text{C}$, Square wave, $R_{\theta JL} = 14.7^\circ\text{C/W}$, $L = 3/8"$
Maximum surge current	I_{FSM} 300 Amps	8.3ms, half sine, $T_J = 150^\circ\text{C}$
Max peak forward voltage	V_{FM} .40 Volts	$I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$
Max peak forward voltage	V_{FM} .49 Volts	$I_{FM} = 5.0\text{A}; T_J = 25^\circ\text{C}^*$
Max peak reverse current	I_{RM} 250 μA	$V_{RRM}, T_J = 25^\circ\text{C}$
Typical junction capacitance	C_J 430 pF	$V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	-55°C to 175°C
Operating junction temp range	T_J	-55°C to 150°C
Maximum thermal resistance	$L = 3/8"$ $R_{\theta JL}$	14.7°C/W Junction to lead
	$L = 1/8"$ $R_{\theta JL}$	11°C/W Junction to lead
Weight		.032 ounces (1.0 grams) typical

MS502, MS503

Figure 1
Typical Forward Characteristics

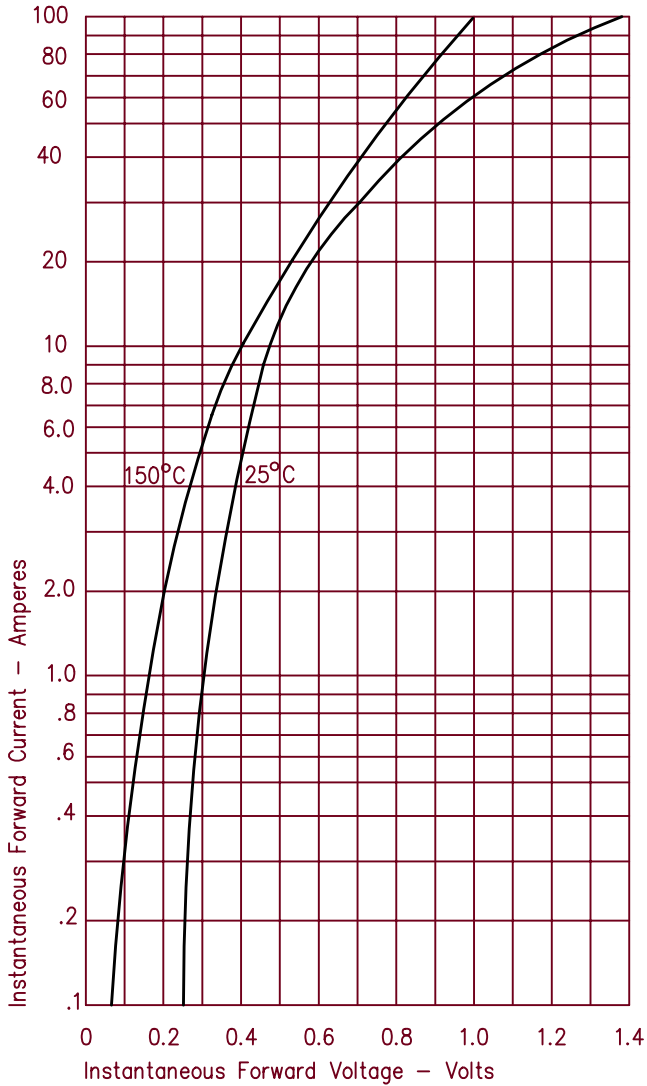


Figure 3
Typical Junction Capacitance

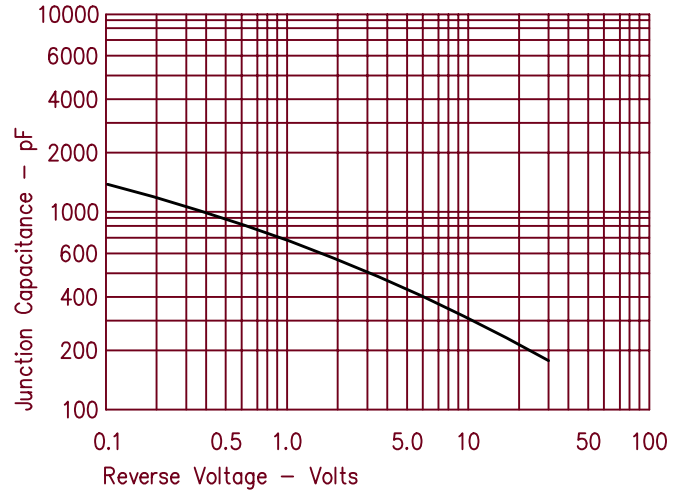


Figure 2
Typical Reverse Characteristics

