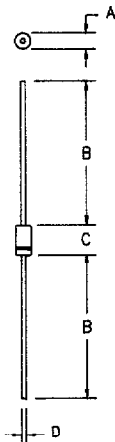


# 5 Amp Schottky Rectifier MS502, MS503



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 MS503	20V 30V	20V 30V	<ul style="list-style-type: none"> <li>• Schottky Barrier Rectifier</li> <li>• Guard Ring Protection</li> <li>• 150°C Junction Temperature</li> <li>• <math>V_{RRM}</math> 20 to 30V</li> </ul>

Electrical Characteristics		
Average forward current	I <sub>F(AV)</sub> 5.0 Amps	T <sub>A</sub> = 123°C, Square wave, R <sub>θJL</sub> = 11°C/W, L = 1/8"
Average forward current	I <sub>F(AV)</sub> 5.0 Amps	T <sub>A</sub> = 113°C, Square wave, R <sub>θJL</sub> = 14.7°C/W, L = 3/8"
Maximum surge current	I <sub>FSM</sub> 300 Amps	8.3ms, half sine, T <sub>J</sub> = 150°C
Max peak forward voltage	V <sub>FM</sub> .40 Volts	I <sub>FM</sub> = 1.0A; T <sub>J</sub> = 25°C*
Max peak forward voltage	V <sub>FM</sub> .49 Volts	I <sub>FM</sub> = 5.0A; T <sub>J</sub> = 25°C*
Max peak reverse current	I <sub>RM</sub> 250 μA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical junction capacitance	C <sub>J</sub> 430 pF	V <sub>R</sub> = 5.0V, T <sub>J</sub> = 25°C
*Pulse test: Pulse width 300 μsec, Duty cycle 2%		

Thermal and Mechanical Characteristics		
Storage temperature range	T <sub>STC</sub>	-40°C to 150°C
Operating junction temp range	T <sub>J</sub>	-40°C to 150°C
Maximum thermal resistance	L = 3/8" R <sub>θJL</sub>	14.7°C/W
	L = 1/8" R <sub>θJL</sub>	11°C/W
Weight		Junction to Lead
		Junction to Lead
		.032 ounces (1.0 grams) typical

**Microsemi Corp.**  
**Colorado**

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# MS502, MS503

Figure 1  
Typical Forward Characteristics

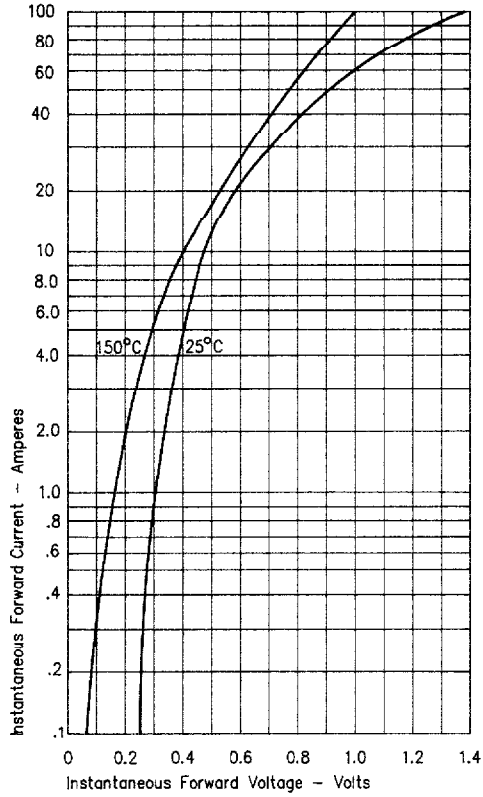


Figure 3  
Typical Junction Capacitance

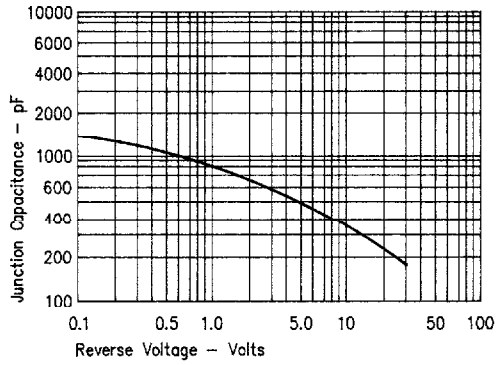


Figure 2  
Typical Reverse Characteristics

