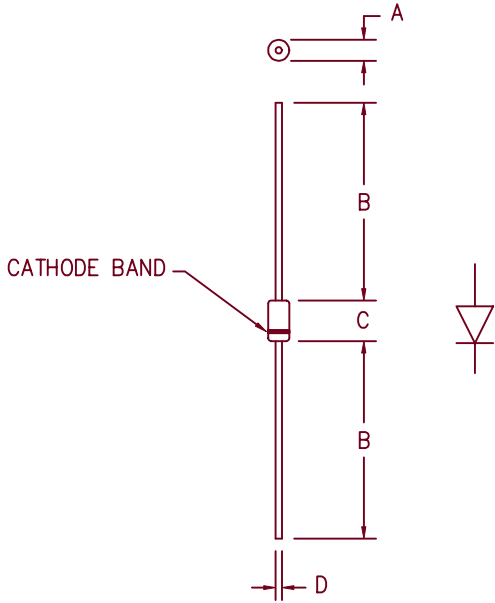


# 5 Amp Schottky Rectifier MS504, MS505



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
MS504	40V	40V
MS505	50V	50V

- Schottky Barrier Rectifier
- Guard Ring Protection
- 175°C Junction Temperature
- High Current Capability

## Electrical Characteristics

Average forward current	I <sub>F(AV)</sub> 5.0 Amps	T <sub>A</sub> = 142°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> = 131°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> = 175°C
Max peak forward voltage	V <sub>FM</sub> .51 Volts	I <sub>FM</sub> = 1.0A: T <sub>J</sub> = 25°C *
Max peak forward voltage	V <sub>FM</sub> .62 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> 415pF	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>STG</sub>	-55°C to 175°C
Operating junction temp range	T <sub>J</sub>	-55°C to 175°C
Maximum thermal resistance	L = 3/8" R <sub>θJL</sub>	14.7°C/W Junction to lead
	L = 1/8" R <sub>θJL</sub>	11°C/W Junction to lead
Weight		.032 ounces (1.0 grams) typical

4-6-00 Rev. 1

# MS504, MS505

Figure 1  
Typical Forward Characteristics

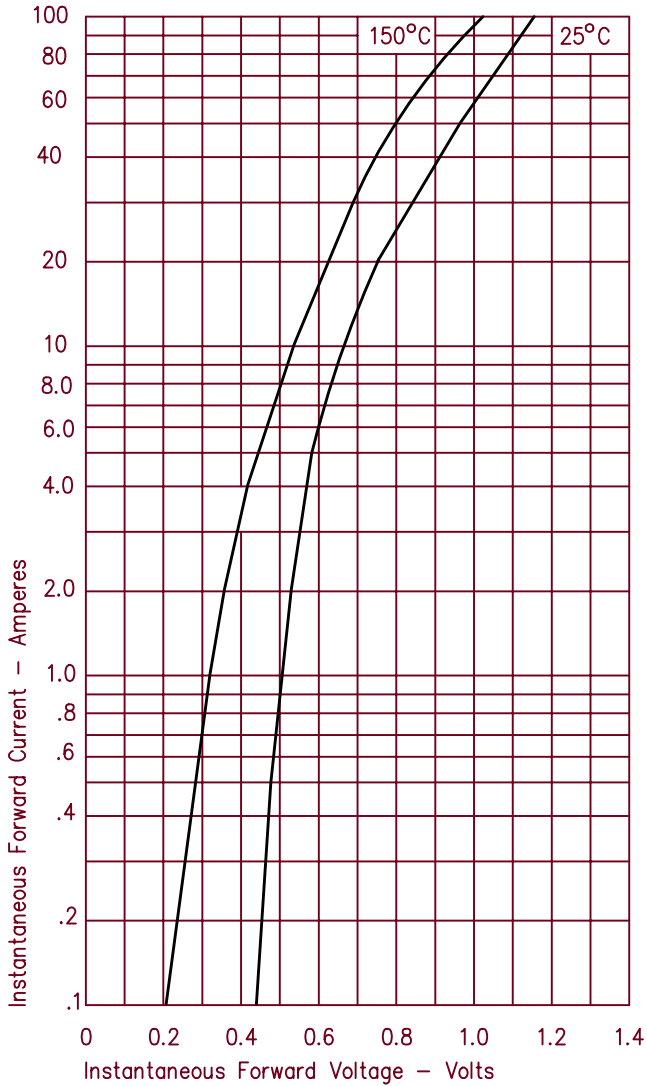


Figure 3  
Typical Junction Capacitance

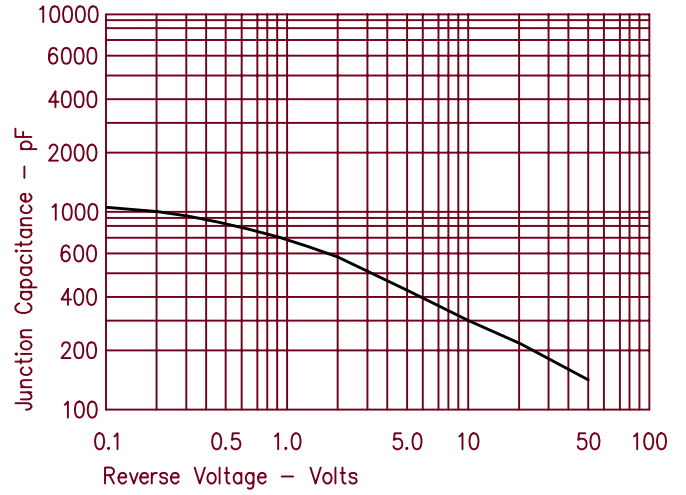


Figure 2  
Typical Reverse Characteristics

