

# Vishay General Semiconductor

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)								
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT		
Maximum instantaneous forward voltage	$I_F = 0.5 A$	T <sub>J</sub> = 25 °C	V <sub>F</sub> <sup>(1)</sup>	0.45	-	V		
	I <sub>F</sub> = 1.0 A			0.56	0.68			
	I <sub>F</sub> = 0.5 A	T <sub>J</sub> = 125 °C		0.40	-			
	I <sub>F</sub> = 1.0 A			0.52	0.60			
Maximum reverse current	Rated V <sub>R</sub>	T <sub>J</sub> = 25 °C	I <sub>R</sub> <sup>(2)</sup>	20	150	μΑ		
		T <sub>J</sub> = 125 °C		7.0	12	mA		
Typical junction capacitance	4.0 V, 1 MHz		CJ	40	-	pF		

### **Notes**

 $^{(1)}$  Pulse test: 300  $\mu s$  pulse width, 1 % duty cycle

(2) Pulse test: Pulse width  $\leq$  40 ms

THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	MSS1P5	MSS1P6	UNIT			
	R <sub>0JA</sub> (1)	125					
Typical thermal resistance	R <sub>0</sub> JL <sup>(1)</sup>		0	°C/W			
	R <sub>0</sub> JC (1)	4	0				

#### Note

(1) Thermal resistance from junction to ambient and junction to lead mounted on PCB with  $6.0 \text{ mm} \times 6.0 \text{ mm}$  copper pad areas  $R_{\theta JL}$  is measured at the terminal of cathode band.  $R_{\theta JC}$  is measured at the top center of the body

ORDERING INFORMATION (Example)								
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE				
MSS1P6-M3/89A	0.006	89A	4500	7" diameter plastic tape and reel				
MSS1P6HM3_A/H (1)	0.006	Н	4500	7" diameter plastic tape and reel				

## Note

(1) AEC-Q101 qualified

## RATINGS AND CHARACTERISTICS CURVES (T<sub>A</sub> = 25°C unless otherwise noted)

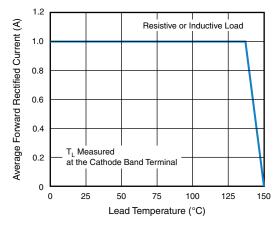


Fig. 1 - Maximum Forward Current Derating Curve

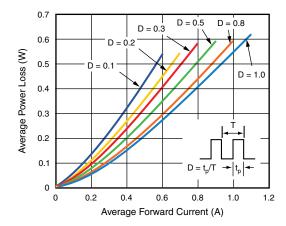


Fig. 2 - Forward Power Loss Characteristics



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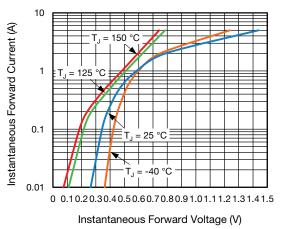


Fig. 3 - Typical Instantaneous Forward Characteristics

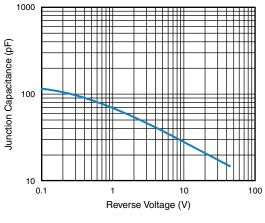


Fig. 5 - Typical Junction Capacitance

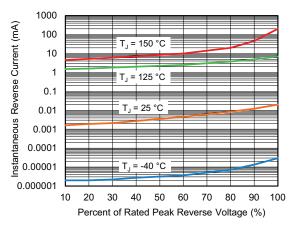


Fig. 4 - Typical Reverse Characteristics

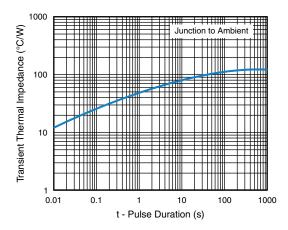
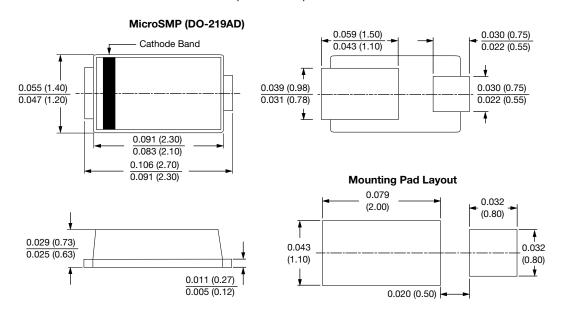


Fig. 6 - Typical Transient Thermal Impedance

## **PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)





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Vishay

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