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## 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 <sub>F</sub> = 0.5 A	T <sub>J</sub> = 25 °C	V <sub>F</sub> <sup>(1)</sup>	0.39	-	V			
	I <sub>F</sub> = 1.0 A			0.44	0.50				
	$I_F = 0.5 A$	T <sub>J</sub> = 125 °C		0.28	-				
	I <sub>F</sub> = 1.0 A			0.35	0.40				
Maxima	Rated V <sub>R</sub>	T <sub>J</sub> = 25 °C	I <sub>R</sub> <sup>(2)</sup>	15	250	μΑ			
Maximum reverse current		T <sub>J</sub> = 125 °C		6.0	20	mA			
Typical junction capacitance	4.0 V, 1 MHz		CJ	65	-	pF			

#### **Notes**

(1) Pulse test: 300 µs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	MSS1P2L	MSS1P3L	UNIT			
	R <sub>0JA</sub> (1)	125		°C/W			
Typical thermal resistance	R <sub>0JL</sub> (1)	30					
	R <sub>0</sub> JC (1)	4	0				

#### Note

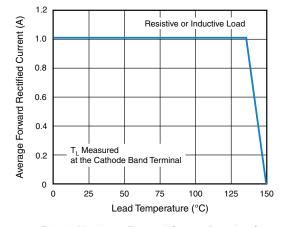
<sup>(1)</sup> Thermal resistance from junction to ambient and junction to lead mounted on PCB with 6.0 mm x 6.0 mm copper pad areas  $R_{\theta JL}$  is measured at the terminal of cathode band.  $R_{\theta JC}$  is measured at the top center of the body

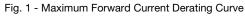
ORDERING INFORMATION (Example)							
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE			
MSS1P2L-M3/89A	0.006	89A	4500	7" diameter plastic tape and reel			
MSS1P2LHM3_A/H (1)	0.006	Н	4500	7" diameter plastic tape and reel			

#### Note

(1) AEC-Q101 qualified

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





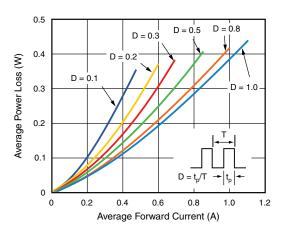


Fig. 2 - Forward Power Loss Characteristics



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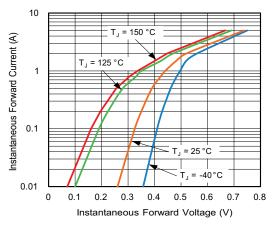


Fig. 3 - Typical Instantaneous Forward Characteristics

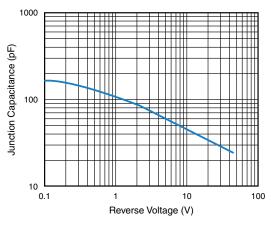


Fig. 5 - Typical Junction Capacitance

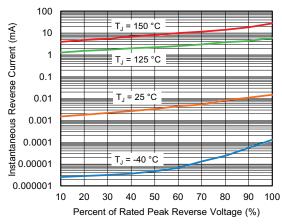


Fig. 4 - Typical Reverse Characteristics

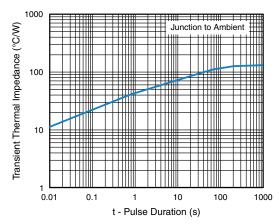
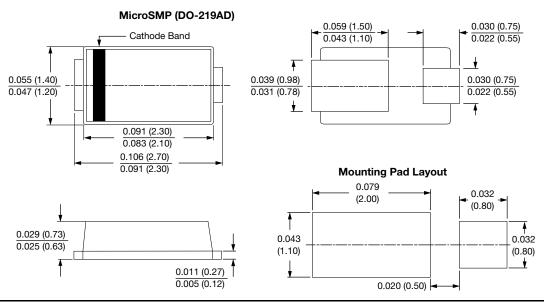


Fig. 6 - Typical Transient Thermal Impedance

### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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