ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)										
PARAMETER	TEST CONDITIONS		SYMBOL	S1PB	S1PD	S1PG	S1PJ	S1PK	S1PM	UNIT
Max. instantaneous forward voltage	I_F = 1.0 A	T_J = 25 °C	V_F (1)	1.1						V
	I_F = 1.0 A	T_J = 125 °C		0.95						
Max. reverse current	Rated V_R	T_J = 25 °C	I_R (2)	1.0				1.0		μA
		T_J = 125 °C		50				100		μA
Typical reverse recovery time	I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A		t_{rr}	1.8						μs
Typical junction capacitance time	4.0 V, 1 MHz		C_J	6.0						pF

Notes

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

(2) Pulse test: Pulse width ≤ 40 ms

THERMAL CHARACTERISTICS (T_A = 25 °c unless otherwise noted)								
PARAMETER	SYMBOL	S1PB	S1PD	S1PG	S1PJ	S1PK	S1PM	UNIT
Typical thermal resistance	$R_{\theta JA}$ (1)	105						°C/W
	$R_{\theta JL}$ (1)	15						
	$R_{\theta JC}$ (1)	20						

Note

(1) Thermal resistance from junction to ambient and junction to lead mounted on PCB with 5.0 mm x 5.0 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
S1PJ-M3/84A	0.024	84A	3000	7" diameter plastic tape and reel
S1PJ-M3/85A	0.024	85A	10 000	13" diameter plastic tape and reel
S1PJHM3/84A (1)	0.024	84A	3000	7" diameter plastic tape and reel
S1PJHM3/85A (1)	0.024	85A	10 000	13" diameter plastic tape and reel

Note

(1) Automotive grade

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

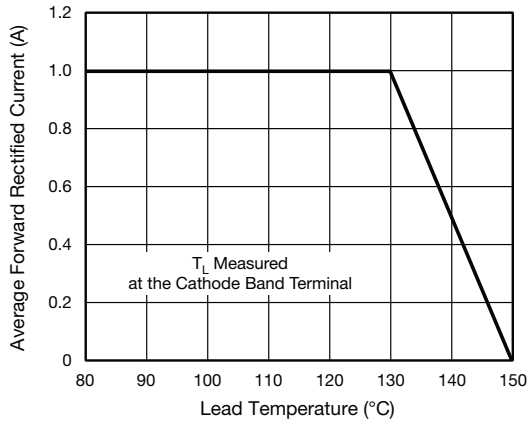


Fig. 1 - Max. Forward Current Derating Curve

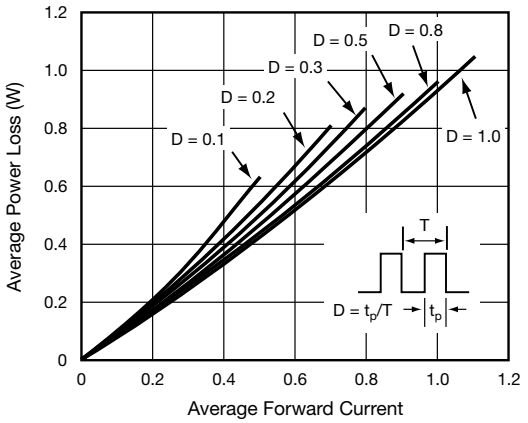


Fig. 2 - Forward Power Loss Characteristics

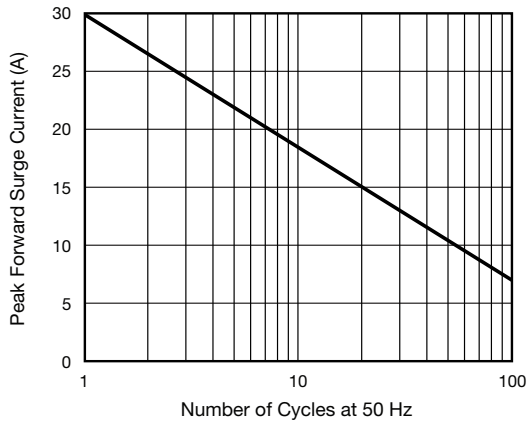


Fig. 3 - Max. Non-Repetitive Peak Forward Surge Current

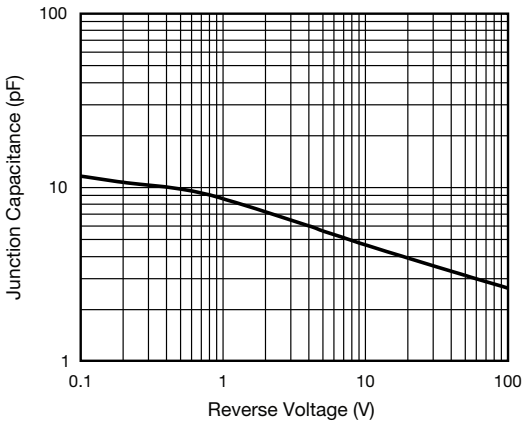


Fig. 6 - Typical Junction Capacitance

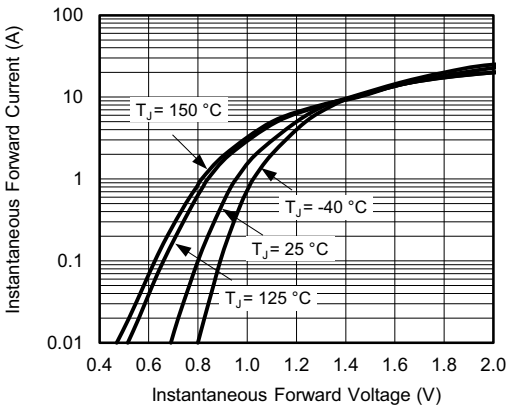


Fig. 4 - Typical Instantaneous Forward Characteristics

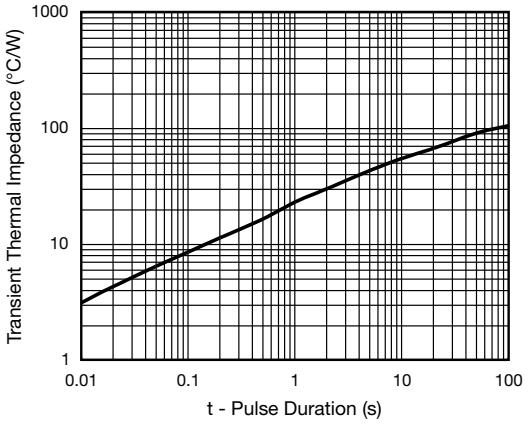


Fig. 7 - Typical Transient Thermal Impedance

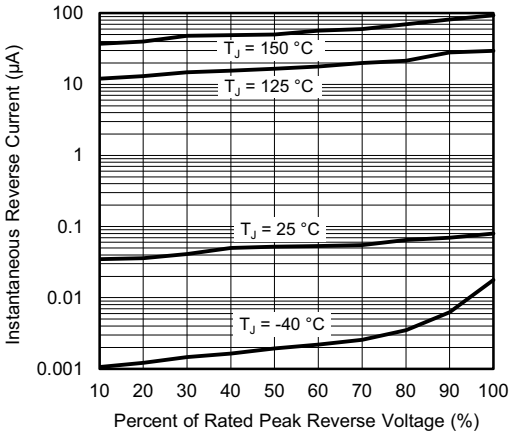
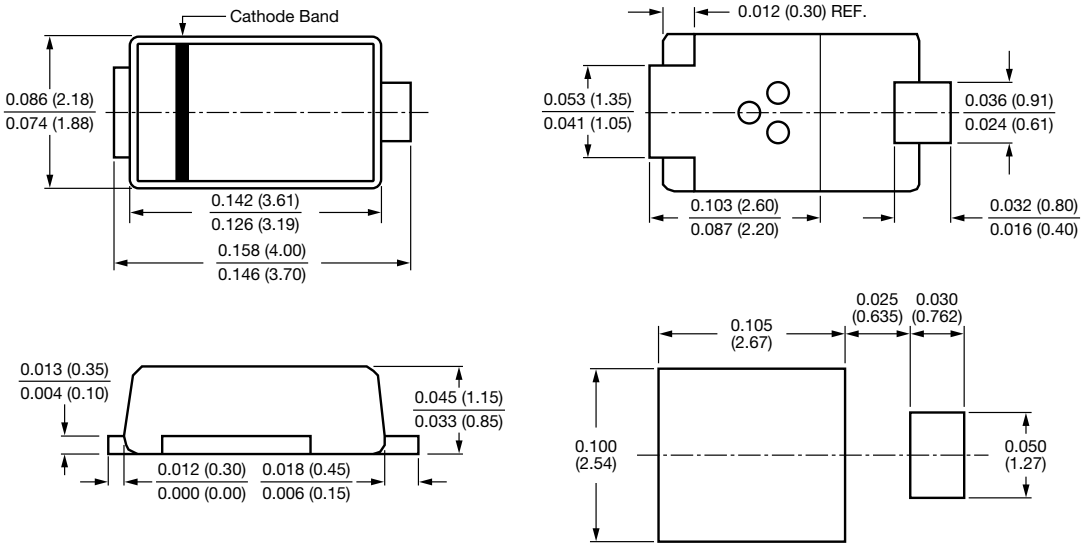


Fig. 5 - Typical Reverse Leakage Characteristics

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

SMP (DO-220AA)



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