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# Vishay Semiconductors

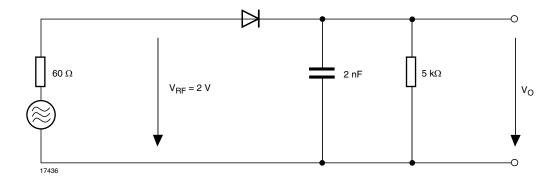
THERMAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)								
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT				
Thermal resistance junction to ambient air (1)		R <sub>thJA</sub>	650	K/W				
Junction temperature		Tj	150					
Operating temperature range		Tj	- 55 to + 150	°C				
Storage temperature range		T <sub>stg</sub>	- 65 to + 150					

#### Note

<sup>(1)</sup> Valid provided that electrodes are kept at ambient temperature

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)								
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT		
Forward voltage	I <sub>F</sub> = 10 mA	V <sub>F</sub>			1000	mV		
	I <sub>F</sub> = 100 mA	$V_{F}$			1200			
Leakage current	V <sub>R</sub> = 20 V	I <sub>R</sub>			25	nA		
	V <sub>R</sub> = 75 V	I <sub>R</sub>			5	μА		
	V <sub>R</sub> = 100 V	I <sub>R</sub>			100			
	$V_R = 20 \text{ V}, T_j = 150 ^{\circ}\text{C}$	I <sub>R</sub>			50			
Diode capacitance	$V_F = V_R = 0 V$	C <sub>D</sub>			4	pF		
Voltage rise when switching ON	Tested with 50 mA pulses, $t_p = 0.1 \mu s$ , rise time < 30 ns, $f_p = (5 \text{ to } 100) \text{ kHz}$	V <sub>fr</sub>			2.5	V		
Reverse recovery time	$I_F$ = 10 mA, $i_R$ = 1 mA, $V_R$ = 6 V, $R_L$ = 100 $\Omega$	t <sub>rr</sub>			4	ns		
Rectification efficiency	f = 100 MHz, V <sub>RF</sub> = 2 V	ην	0.45					

#### RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT



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#### TYPICAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

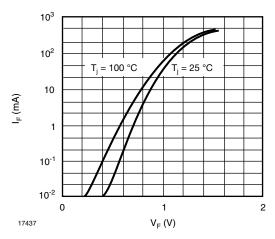


Fig. 1 - Forward Characteristics

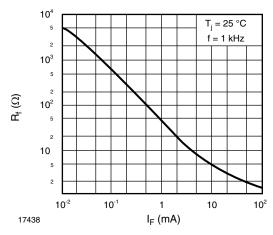


Fig. 2 - Dynamic Forward Resistance vs. Forward Current

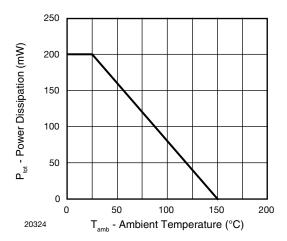


Fig. 3 - Admissible Power Dissipation vs. Ambient Temperature

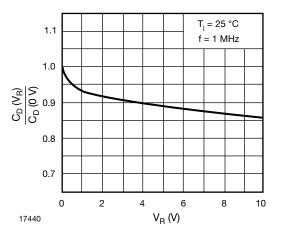


Fig. 4 - Relative Capacitance vs. Reverse Voltage

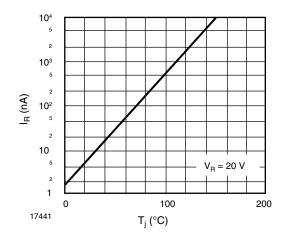


Fig. 5 - Leakage Current vs. Junction Temperature

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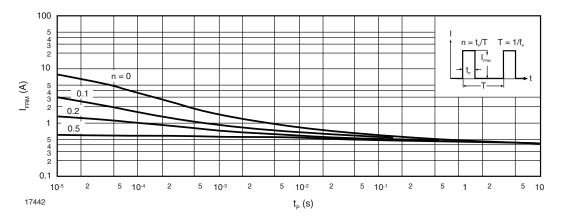
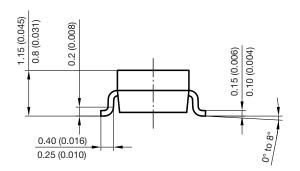
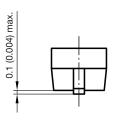
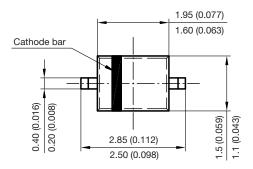


Fig. 6 - Admissible Repetitive Peak Forward Current vs. Pulse Duration

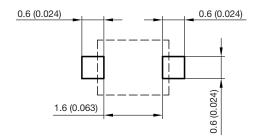
#### PACKAGE DIMENSIONS in millimeters (inches): SOD-323







Foot print recommendation:



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