

Vishay Semiconductors

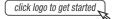
25 000

Standard Avalanche Sinterglass Diode



949539

DESIGN SUPPORT TOOLS





MECHANICAL DATA

Case: SOD-57

Terminals: plated axial leads, solderable per MIL-STD-750,

1N5062TAP

method 2026

1N5062

Polarity: color band denotes cathode end

Mounting position: any Weight: approx. 369 mg

FEATURES

- · Glass passivated junction
- Hermetically sealed axial-leaded glass envelope
- · Controlled avalanche characteristics
- · Low reverse current
- · High surge current loading
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



COMPLIANT HALOGEN

APPLICATIONS

· Rectification diode, general purpose

ORDERING INFORMATION (Example)					
DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY		
1N5062	1N5062TR	5000 per 10" tape and reel	25 000		

5000 per ammopack

PARTS TABLE					
PART	TYPE DIFFERENTIATION	PACKAGE			
1N5059	V _R = 200 V; I _{F(AV)} = 2 A	SOD-57			
1N5060	V _R = 400 V; I _{F(AV)} = 2 A	SOD-57			
1N5061	V _R = 600 V; I _{F(AV)} = 2 A	SOD-57			
1N5062	$V_{B} = 800 \text{ V}; I_{E(AV)} = 2 \text{ A}$	SOD-57			

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION P.		SYMBOL	VALUE	UNIT	
		1N5059	$V_R = V_{RRM}$	200	V	
Payersa valtaga – ranatitiva naak rayersa valtaga	See electrical characteristics	1N5060	$V_R = V_{RRM}$	400	V	
Reverse voltage = repetitive peak reverse voltage	See electrical characteristics	1N5061	$V_R = V_{RRM}$	600	V	
		1N5062	$V_R = V_{RRM}$	800	V	
Peak forward surge current	$t_p = 10$ ms, half sine wave		I _{FSM}	50	Α	
Average forward current	$T_{thJA} = 45 \text{ K/W}, T_{amb} = 50 ^{\circ}\text{C}$		I _{F(AV)}	2	Α	
Average forward current	$T_{thJA} = 100 \text{ K/W}, T_{amb} = 75 \text{ °C}$		I _{F(AV)}	0.8	Α	
Pulse energy in avalanche mode, non repetitive (inductive load switch off)	$I_{(BR)R} = 1$ A, inductive load		E _R	20	mJ	
Junction and storage temperature range			$T_j = T_{stg}$	-55 to +175	°C	

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MAXIMUM THERMAL RESISTANCE (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER TEST CONDITION		SYMBOL	VALUE	UNIT	
Junction ambient	Lead length I = 10 mm, T _L = constant	R_{thJA}	45	K/W	
	On PC board with spacing 25 mm	R_{thJA}	100	K/W	

ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX	UNIT
Forward voltage	I _F = 1 A		V_{F}	-	-	1	V
Torward voitage	I _F = 2.5 A		V_{F}	-	-	1.15	V
	$V_R = V_{RRM}$		I _R	-	-	1	μΑ
Reverse current	$V_R = V_{RRM}$, $T_j = 100$ °C		I _R	-	-	10	μΑ
	$V_R = V_{RRM}$, $T_j = 150$ °C		I _R	-	-	100	μΑ
	I _R = 100 μA	1N5059	$V_{(BR)R}$	225	-	1600	V
Breakdown voltage		1N5060	$V_{(BR)R}$	450	-	1600	V
breakdown voltage		1N5061	$V_{(BR)R}$	650	-	1600	V
		1N5062	$V_{(BR)R}$	900	-	1600	V
Diode capacitance	$V_R = 0 V, f = 1 MHz$		C_D	-	40	-	pF
Reverse recovery time	$I_F = 0.5 \text{ A}, I_R = 1 \text{ A}, i_R = 0.25 \text{ A}$		t _{rr}	-	-	4	μs

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

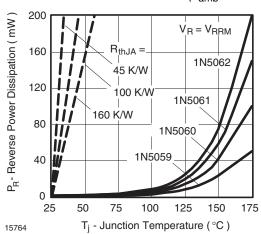


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

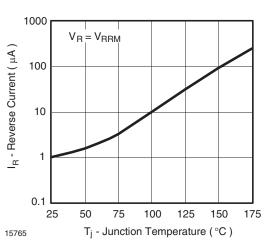


Fig. 2 - Max. Reverse Current vs. Junction Temperature

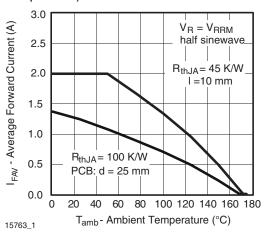


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

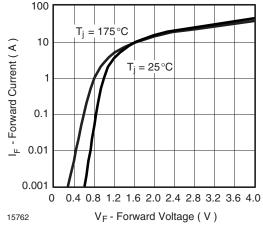


Fig. 4 - Max. Forward Current vs. Forward Voltage

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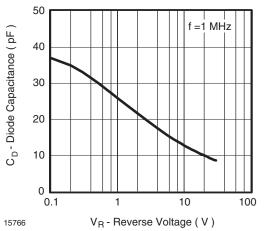
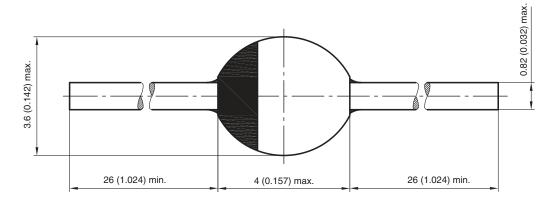


Fig. 5 - Diode Capacitance vs. Reverse Voltage

PACKAGE DIMENSIONS in millimeters (inches): SOD-57



20543

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