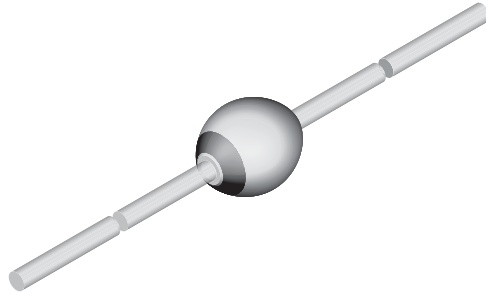




# Standard Avalanche Sinterglass Diode



949539

### DESIGN SUPPORT TOOLS

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### 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](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

### APPLICATIONS

- Rectification diode, general purpose

### MECHANICAL DATA

**Case:** SOD-57

**Terminals:** plated axial leads, solderable per MIL-STD-750, method 2026

**Polarity:** color band denotes cathode end

**Mounting position:** any

**Weight:** approx. 369 mg

ORDERING INFORMATION (Example)			
DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY
1N5062	1N5062TR	5000 per 10" tape and reel	25 000
1N5062	1N5062TAP	5000 per ammpack	25 000

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

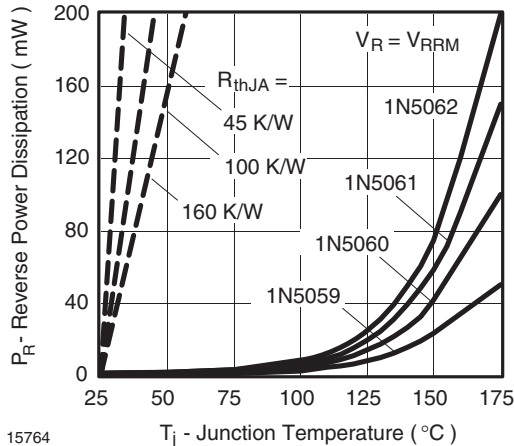
ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^\circ\text{C}$ , unless otherwise specified)					
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage = repetitive peak reverse voltage	See electrical characteristics	1N5059	$V_R = V_{RRM}$	200	V
		1N5060	$V_R = V_{RRM}$	400	V
		1N5061	$V_R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



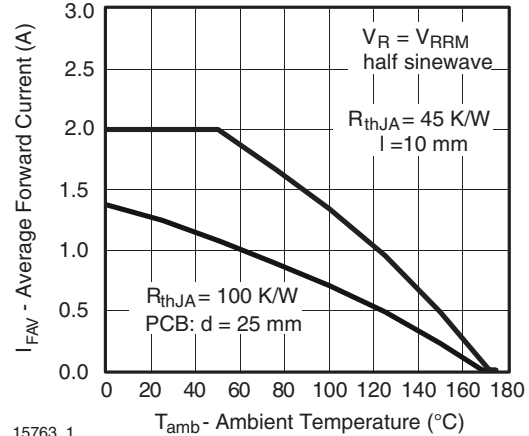
MAXIMUM THERMAL RESISTANCE ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Junction ambient	Lead length $l = 10\text{ mm}$ , $T_L = \text{constant}$	$R_{thJA}$	45	K/W
	On PC board with spacing 25 mm	$R_{thJA}$	100	K/W

ELECTRICAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX	UNIT
Forward voltage	$I_F = 1\text{ A}$		$V_F$	-	-	1	V
	$I_F = 2.5\text{ A}$		$V_F$	-	-	1.15	V
Reverse current	$V_R = V_{RRM}$		$I_R$	-	-	1	$\mu\text{A}$
	$V_R = V_{RRM}$ , $T_j = 100\text{ }^{\circ}\text{C}$		$I_R$	-	-	10	$\mu\text{A}$
	$V_R = V_{RRM}$ , $T_j = 150\text{ }^{\circ}\text{C}$		$I_R$	-	-	100	$\mu\text{A}$
Breakdown voltage	$I_R = 100\text{ }\mu\text{A}$	1N5059	$V_{(BR)R}$	225	-	1600	V
		1N5060	$V_{(BR)R}$	450	-	1600	V
		1N5061	$V_{(BR)R}$	650	-	1600	V
		1N5062	$V_{(BR)R}$	900	-	1600	V
Diode capacitance	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$		$C_D$	-	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	$\mu\text{s}$

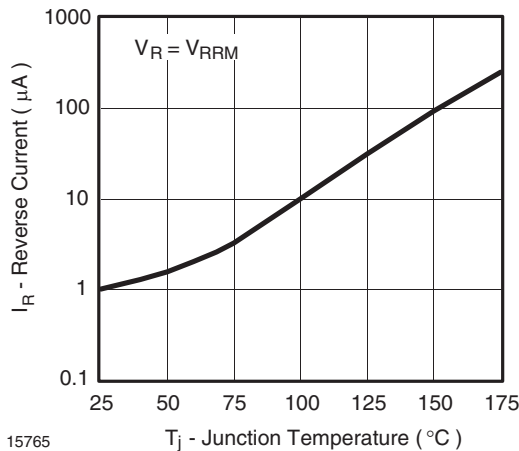
TYPICAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)



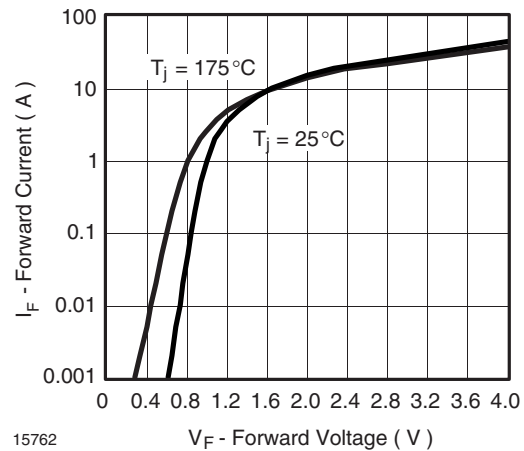
15764 Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature



15763\_1 Fig. 3 - Max. Average Forward Current vs. Ambient Temperature



15765 Fig. 2 - Max. Reverse Current vs. Junction Temperature



15762 Fig. 4 - Max. Forward Current vs. Forward Voltage

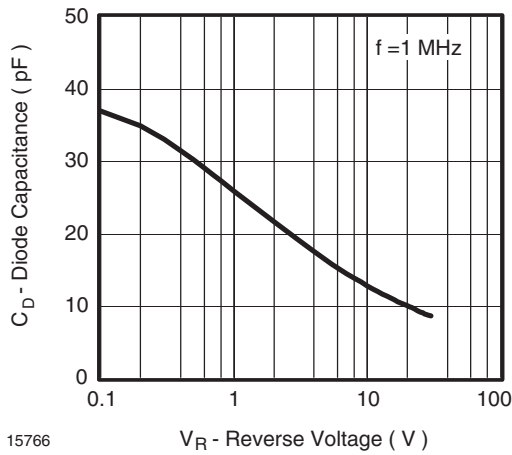
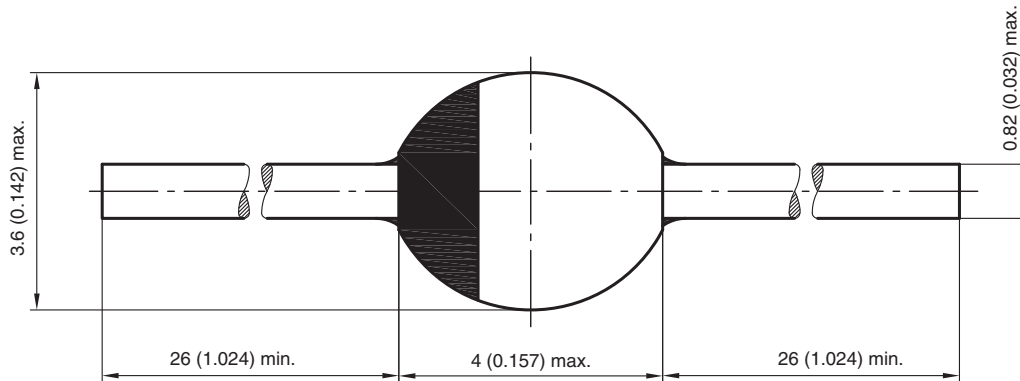


Fig. 5 - Diode Capacitance vs. Reverse Voltage

**PACKAGE DIMENSIONS** in millimeters (inches): **SOD-57**



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