

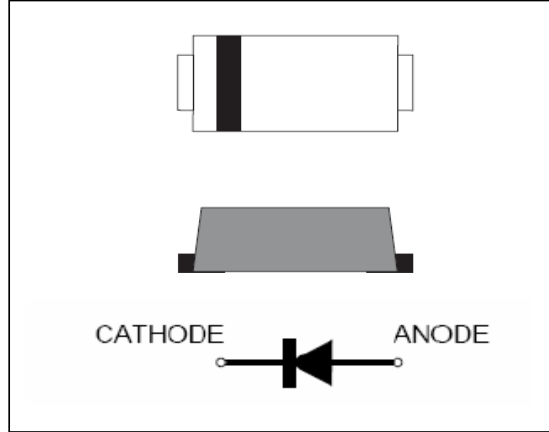
SOD4001-SH thru SOD4007-SH

Surface Mount Glass Passivated Junction Rectifiers

Reverse Voltage 50 to 1000V Forward Current 1.0A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High temperature metallurgically bonded construction
- * Cavity-free glass passivated junction
- * Capable of meeting environmental standards of MIL-S-19500
- * 1.0 A operation at TA=75°C with no thermal runaway
- * Typical IR less than 1.0μA
- * High temperature soldering guaranteed: 260°C/10 seconds



Mechanical Data

Case: JEDEC SOD123-FL/MINI SMA, molded plastic over glass DIE

Terminals: Tin Plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position Any

Weight: 0.0155 g

Handling precaution: None

Electrical Characteristic

1. Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SOD 4001-SH	SOD 4002-SH	SOD 4003-SH	SOD 4004-SH	SOD 4005-SH	SOD 4006-SH	SOD 4007-SH	Unit
Device marking code		A1	A2	A3	A4	A5	A6	A7	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current lead length at $T_C = 75^\circ\text{C}$ (Note 1)	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
reverse surger current(20mS)	I_{RSM}	18							mA
Typical thermal resistance (Note 1)	$R\theta_{JA}$	110							$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-55 to +150							$^\circ\text{C}$
storage temperature range	T_{STG}	-65 to +175							$^\circ\text{C}$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SOD 4001-SH	SOD 4002-SH	SOD 4003-SH	SOD 4004-SH	SOD 4005-SH	SOD 4006-SH	SOD 4007-SH	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							V
Maximum DC reverse current $T_J = 25^\circ\text{C}$ at rated DC blocking voltage $T_J = 125^\circ\text{C}$	I_R	5.0 50							μA
Typical junction capacitance at 4.0V, 1MHz	C_J	15.0							PF

NOTES:

1. 8.0mm² (.013mm thick) land areas

We declare that the material of product is Halogen free (green epoxy compound)

SOD4001-SH thru SOD4007-SH

2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

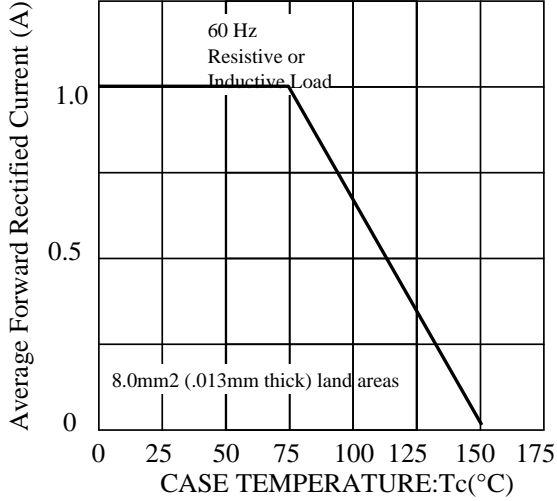


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

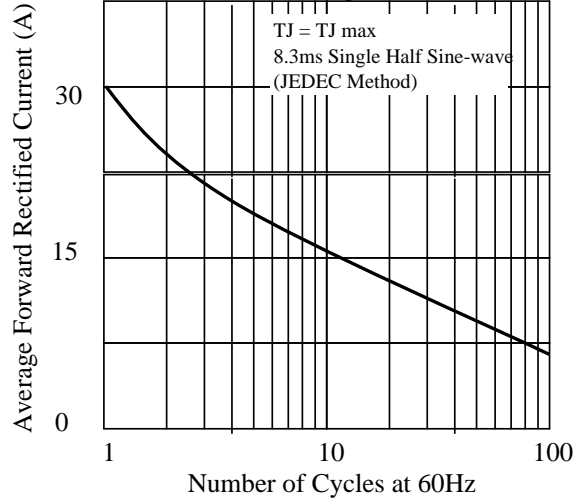


Fig 3. - Typical Instantaneous Forward Characteristics

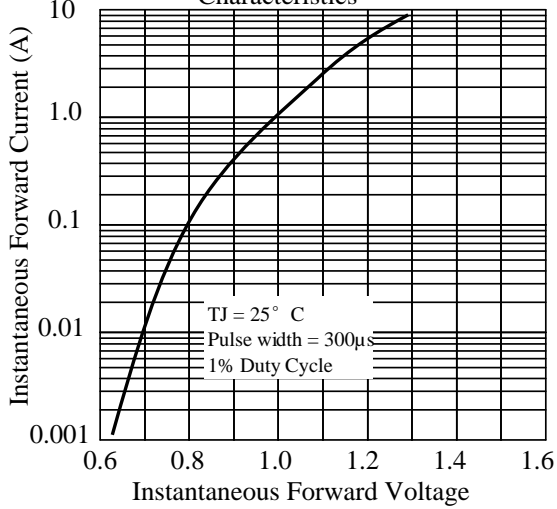


Fig 4. - Typical Reverse Characteristics

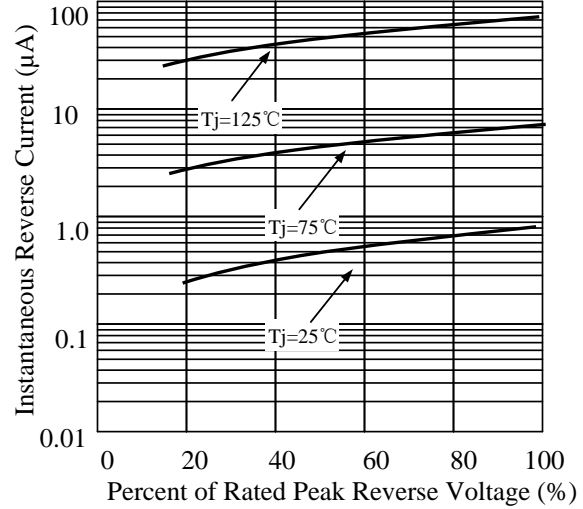


Fig 5. - typical transient thermal impedance

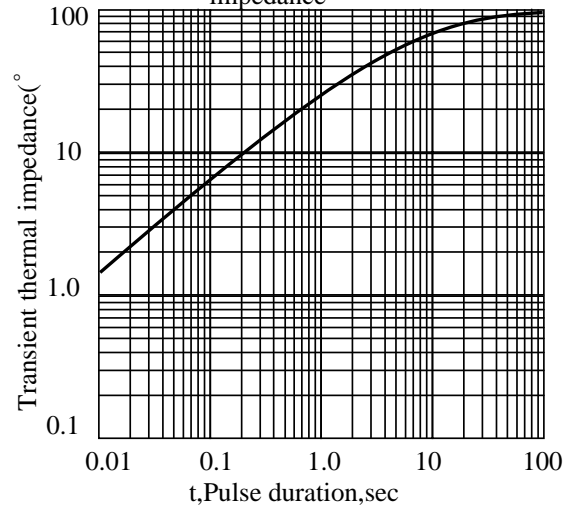
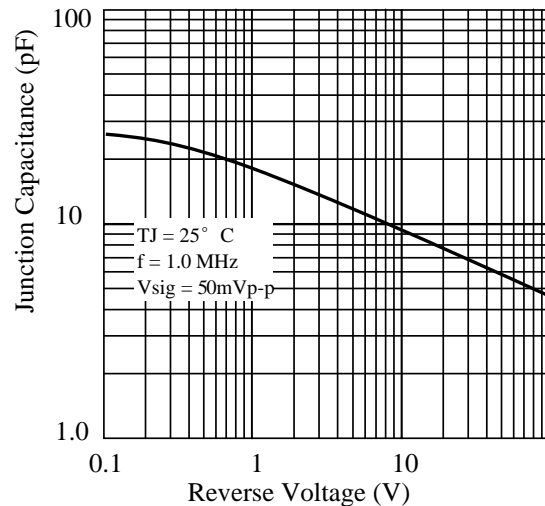


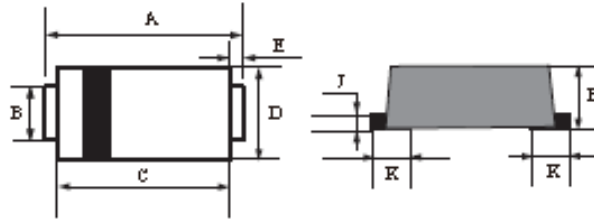
Fig 6. - Typical Junction Capacitance



SOD4001-SH thru SOD4007-SH

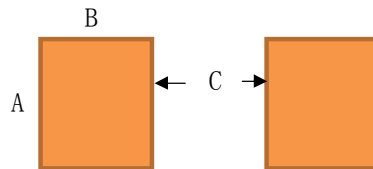
3. dimension:

SOD123-FL



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.5	3.9	0.138	0.159
B	0.75	0.95	0.029	0.037
C	2.6	3.0	0.103	0.119
D	1.6	2.0	0.063	0.079
E	0.45Typ		0.018Typ	
H	0.9	1.2	0.036	0.047
J	0.12	0.22	0.005	0.009
K	0.8Typ		0.032Typ	

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD123-FL	0.044(1.10)	0.040(1.00)	0.079(2.00)