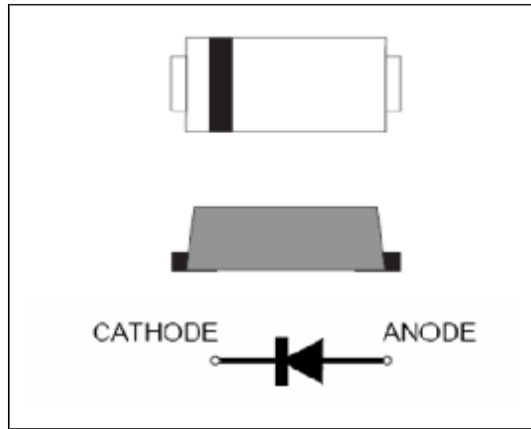


**Surface Mount Glass Passivated Junction Rectifiers**  
**Reverse Voltage 50 to 1000V Forward Current 1.0A**

**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



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

**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	MEK 4001-D1	MEK 4002-D1	MEK 4003-D1	MEK 4004-D1	MEK 4005-D1	MEK 4006-D1	MEK 4007-D1	Unit
Device marking code		A1	A2	A3	A4	A5	A6	A7	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current lead length at T <sub>A</sub> = 75°C (Note 1)	I <sub>F(AV)</sub>	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							A
reverse surger current(20ms)	I <sub>RSM</sub>	18							mA
Typical thermal resistance (Note 1)	R <sub>θJA</sub> R <sub>θJC</sub>	110 40							°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150							°C
storage temperature range	T <sub>STG</sub>	-65 to +175							°C

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

Parameter Symbol	symbol	MEK 4001-D1	MEK 4002-D1	MEK 4003-D1	MEK 4004-D1	MEK 4005-D1	MEK 4006-D1	MEK 4007-D1	Unit
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.1							V
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> = 25°C T <sub>J</sub> = 100°C	I <sub>R</sub>	5.0 50							μA
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	15.0							PF

NOTES:

1. 8.0mm<sup>2</sup> (.013mm thick) land areas

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

Fig. 1 - Forward Current Derating Curve

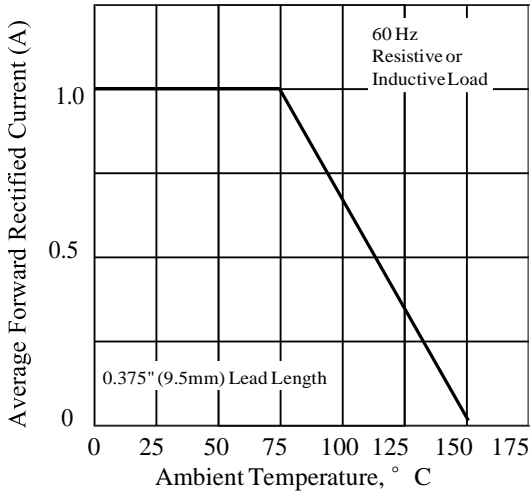


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

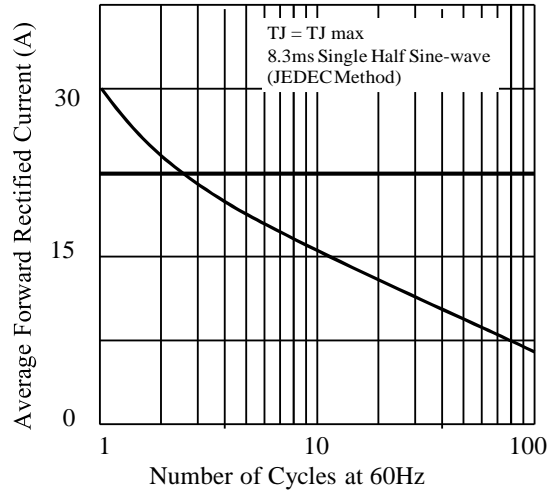


Fig. 3 - Typical Instantaneous Forward Characteristics

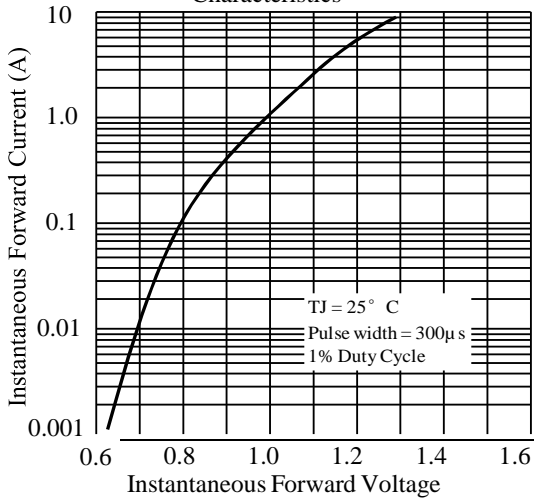


Fig. 4 - Typical Reverse Characteristics

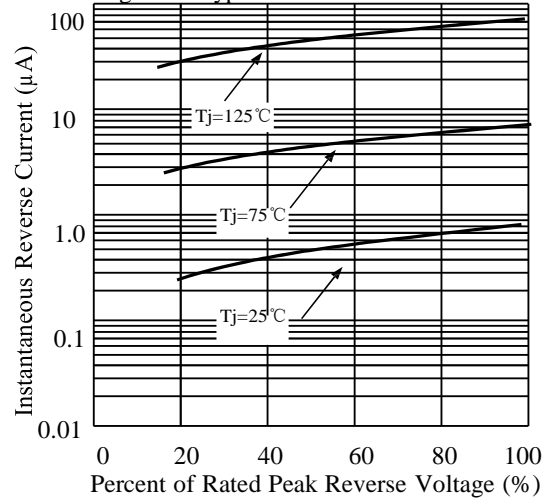


Fig 5. - typical transient thermal impedance

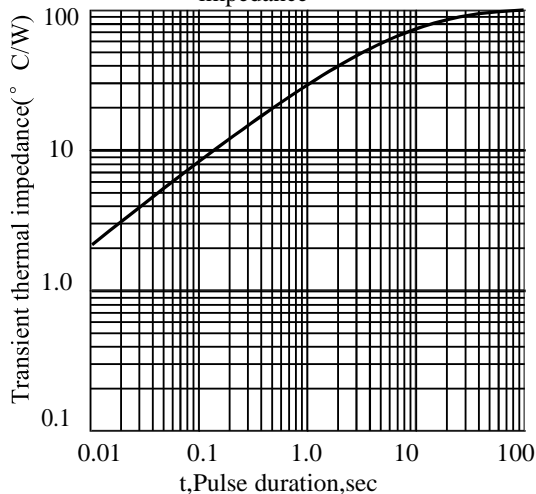
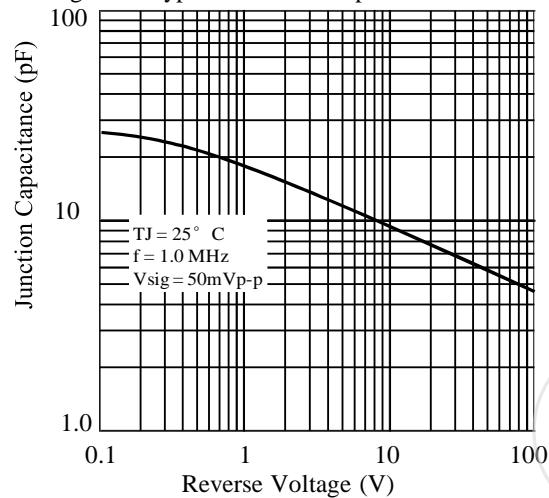
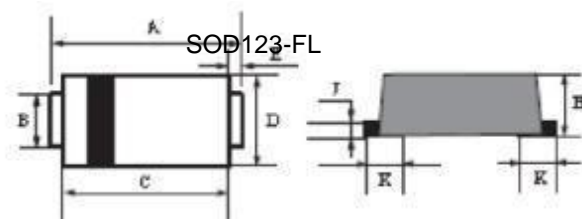


Fig 6. - Typical Junction Capacitance

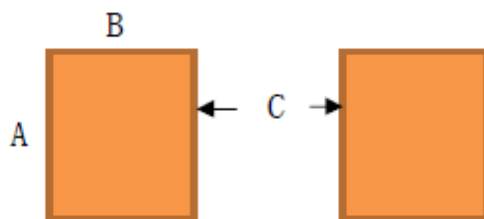


**3. dimension:**



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)

